



MINISTRY OF SURFACE TRANSPORT
ROADS WING
NEW DELHI
1991

**STANDARD PLANS FOR 3.0 m TO 10.0 m SPAN REINFORCED CEMENT CONCRETE
SOLID SLAB SUPERSTRUCTURE WITH & WITHOUT FOOTPATHS FOR HIGHWAYS**



Ministry of Surface Transport
(Roads Wing)

STANDARD PLANS FOR HIGHWAY BRIDGES R.C.C. SLAB SUPERSTRUCTURE

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on behalf of the Govt. of India,
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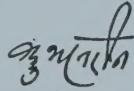
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FOREWORD

I have great pleasure in placing before the community of Bridge Engineers, this Volume of Standard Plans for Highway Bridges covering RCC right slab type superstructure. This publication is the first in the series of new Standard Plans for Highway Bridge Superstructure being brought out keeping in view the recent changes in specifications and provisions in the Bridge Codes. I am sure this publication will prove extremely useful in proper planning, estimation and execution of highway bridges in the country.

The publication has been made possible by the sustained efforts of the personnel of the Bridges Standards and Research zone of the Bridges Directorate of this Ministry and the Consultant associated with the work, who deserve commendation for the work done by them. The keen interest of the Addl. Director General (Bridges), in taking up this work and bringing out this publication in a short time is worthy of special mention.



(K.K. SARIN)

Director General (Road Development) &
Addl. Secretary to the Govt. of India

New Delhi, June 1, 1991

PREFACE

The Standard Plans for Highway Bridges with RCC Slab Type Superstructure (Volume II) were first issued by the Ministry of Surface Transport (Roads Wing) in the year 1977. Since then there have been several revisions in the specifications and provisions of the Bridge Codes. The preparation of revised Standard Drawings was, therefore, taken up towards the end of 1989 and completed on top priority.

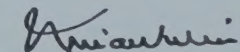
This Volume, the first in the series of new Standard Drawings for Superstructure, contains Standard Plans for RCC Slab type highway bridge superstructure for 3.0 to 10.0 metre effective spans. It also contains drawings for wearing coat, railings and miscellaneous items. A separate volume containing bill of quantities for various items of superstructures will also be issued shortly.

The design caters for one lane of IRC Class 70-R wheeled/tracked loading or 2-lanes of IRC Class A loading whichever produces more severe effect. Footpaths have been designed for a crowd load of 5 kN/m². Keeping in view the current practice of providing a deck of the same width as the adjoining road for NH bridges having total length less than 30 m, the overall width between the outer faces of the railing kerb has been kept as 12 m. The wearing coat will be of mastic and asphaltic concrete type, except in remote areas where average 75 mm thick cement concrete wearing coat may also be adopted. The designs are based on Standard Specifications and Codes of Practice for Highway Bridges issued by the Indian Roads Congress. For construction purposes, Specifications for Road and Bridge works issued by the Govt. of India, Ministry of Surface Transport (Roads Wing), as amended from time to time, will apply.

The plans have been made complete in all respects so that they could be readily adopted for preparation of estimates and also serve as construction drawings in the field. The entire design philosophy adopted lays great emphasis on constructability i.e. convenient and full translation of the design on to the ground. A great deal of attention has, therefore, been paid to dimensioning and detailing. I have no doubt that the wide spread adoption of these Standard Plans will lead to reduction in time of construction and enhancement of the quality and durability of our road bridges.

Every possible care has been taken to eliminate errors in the Drawings but users are requested to bring to our notice errors or omissions, if any, which may come to light while using these Drawings in their bridge works.

The work of preparing the Designs and Drawings was carried out by the Consultant, M/s. Consulting Engineering Services (India) Pvt. Ltd., New Delhi. Equally important contributions in the finalisation of the designs and details were made by officers of the Ministry whose names appear in the title blocks of various drawings. The enthusiasm and dedication which they brought to bear on the task are to be highly appreciated.



(NINAN KOSHI)

Addl. Director General (Bridges),
Ministry of Surface Transport (Roads Wing)

New Delhi, June 1, 1991

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(A) GENERAL

1. These notes are applicable for the Standard Drawings for R.C.C. solid slab superstructure with and without footpaths.
2. These drawings are applicable only for right bridges with overall width of 12 m.
3. No raised footpaths shall be provided on the bridges having length less than 30m unless the same are otherwise existing on the approaches.
4. All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed. No drawing shall be scaled.
5. Design criteria:
 - I. The design is according to the following codes:
 - (a) IRC : 5-1985
 - (b) IRC : 6-1966 (1985 reprint)
 - (c) IRC : 21-1987.
 - II. The following loads have been considered in the design:
 - (a) One lane of IRC class 70R or two lanes of IRC class A on carriage way, whichever governs.
 - (b) Footpath load of 5 kN/sq.m for superstructure having footpaths.
 - (c) Wearing coat load of 2 kN/sq.m.
 - III. The designs are applicable for 'MODERATE' AND 'SEVERE' conditions of exposure.
6. Public utility services (except water supply and sewerage), if required, shall be carried over the bridge through 150mm diameter ducts provided in the footpaths. Total load of such services shall not be more than 1.0 kN per metre on each footpath. Water/sewerage pipeline shall not be carried over any part of the superstructure. Inspection chambers in footpaths may be provided as shown in the drawing. The location and spacing of chambers along the footpath will be decided by the Engineer-in-charge in consultation with the users.
7. Wearing coat shall consist of the following:
 - I. (a) A coat of mastic asphalt 6mm thick with a prime coat over the top of the deck before the wearing coat is laid. The prime coat of mastic asphalt shall be 30% straight run 30/40 penetration grade bitumen and 50% light solvent (Benzol) to be laid over the deck slab. The insulating layer of 6mm thick mastic asphalt with 75% lime stone dust filler and 25% of 30/40 penetration grade bitumen shall be laid at 375°F with broom over prime coat.
 - (b) 50mm thick asphaltic concrete wearing coat in two layers of 25mm each as per Clause 512 of MOST's Specifications for Road and Bridge Works (Second Revision-1988)
- II. In case of isolated bridge construction or bridges located in remote areas where provision of mastic and asphaltic concrete wearing coat is not practicable, the Engineer-in-charge may permit provision of 75mm thick cement concrete wearing coat in M30 grade concrete with maximum water cement ratio as 0.40. The reinforcement shall consist of 8mm High Yield Strength Deformed bars @ 200mm centres reducing to 100 centres in both the di-

rections over a strip of 300mm near the expansion joint. Reinforcement shall be placed at the centre of the wearing coat. Wearing coat shall be discontinued at expansion joint locations. Joint fillers shall extend upto the top of wearing coat.

8. 20mm expansion joint does not cater for any allowance for possible tilting of abutment.
9. Support for the deck slab shall provide a bearing width of 400mm.
10. In urban areas, chequered tiles may be provided in the footpath portion by suitably adjusting the thickness of the footpath slab.
11. Type/position of return walls, railings, guard posts, ramp etc. in approach portion shall be decided by the Engineer-in-charge.

(B) MATERIALS SPECIFICATIONS**Concrete**

1. Concrete shall be of design mix and shall have minimum 28 days characteristic strength on 150mm cubes for all elements of superstructure as indicated below:

Conditions of exposure	Concrete grade	Characteristic Strength
'MODERATE'	M 25	25 MPa (for 3m to 9m span)
'MODERATE'	M 30	30 MPa (for 10m span)
'SEVERE'	M 30	30 MPa (for 3m to 10m span)

2. High strength ordinary portland cement conforming to IS:8112 or ordinary portland cement conforming to IS 269 capable of achieving the required design concrete strength shall only be used.
3. The minimum cement content and maximum water cement ratio in the concrete design mix shall be 310 kg/cu.m and 0.45 respectively for 'MODERATE' conditions of exposure. The minimum cement content and maximum water cement ratio in the concrete design mix shall be 400 kg/cu.m and 0.40 respectively for 'SEVERE' conditions of exposure.

Reinforcement

All reinforcing bars shall be High Yield Strength Deformed bars (Grade designation S 415) conforming to IS 1786.

Water

Water to be used in concreting and curing shall conform to Clause 302.4 of IRC 21-1987.

(C) WORKMANSHIP/DETAILING

1. Minimum clear cover to any reinforcement including stirrups shall be 50mm unless shown otherwise in the drawings.
2. For ensuring proper cover of concrete to reinforcement bars specially made polymer cover blocks shall only be used.
3. **Construction Joints**
 - I. The location and provision of construction joints shall be approved by Engineer-in-charge. The concreting operation shall be carried out continuously upto the construction joint.

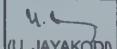
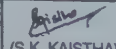
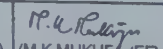
- II. The concrete surface at the joint shall be brushed with a stiff brush after casting while the concrete is still fresh and it has only slightly hardened.
- III. Before new concrete is poured the surface of old concrete shall be prepared as under:
 - a) For hardened concrete, the surface shall be thoroughly cleaned to remove debris/laitance and made rough so that 1/4 of the size of the aggregate or structurally damaging the concrete.
 - b) For partially hardened concrete, the surface shall be treated by wire brush followed by an air jet.
 - c) The old surface shall be soaked with water without leaving puddles immediately before starting concreting to prevent the absorption of water from new concrete.
- IV. New concrete shall be thoroughly compacted in the region of the joint.
4. Welding of reinforcement bars shall not be permitted.
5. Laps in reinforcement:
 - I. Minimum lap length of reinforcement shall be kept as 83 d where 'd' is the diameter of bar.
 - II. Not more than 50% of reinforcement shall be lapped at any one location.
6. Bending of reinforcement bars shall be as per IS : 2502.
7. Supporting chairs of 12mm diameter shall be provided at suitable intervals as per IS : 2502.
8. Concrete shall be produced in a mechanical mixer of capacity not less than 200 litres having integral weigh-batching facility and automatic water measuring and dispensing device.
9. Proper compaction of concrete shall be ensured by use of full width screed vibrators for concrete in deck slab.
10. Properly braced steel plates shall be used as shuttering.
11. Sharp edges of concrete shall be chamfered.

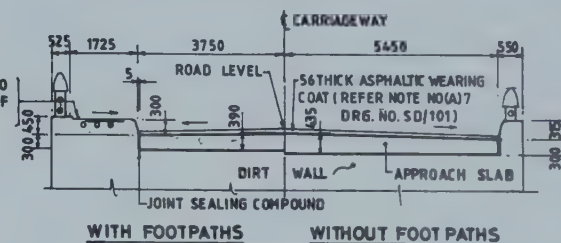
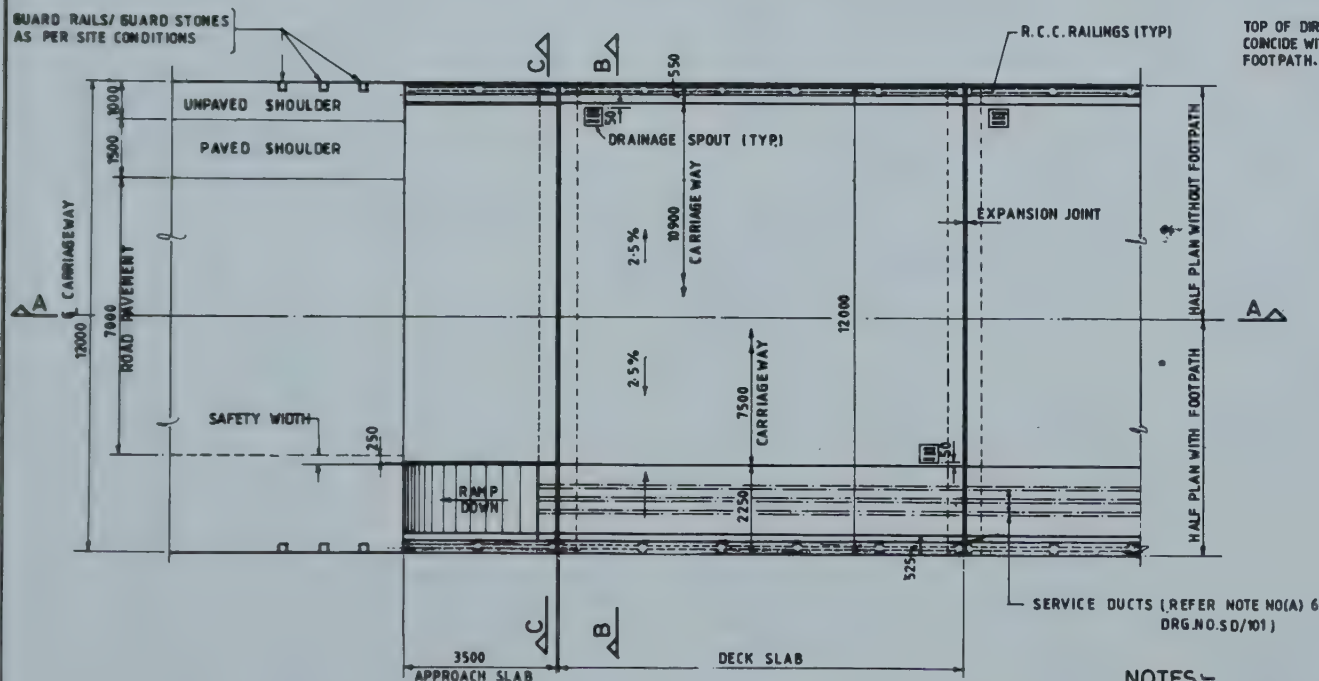
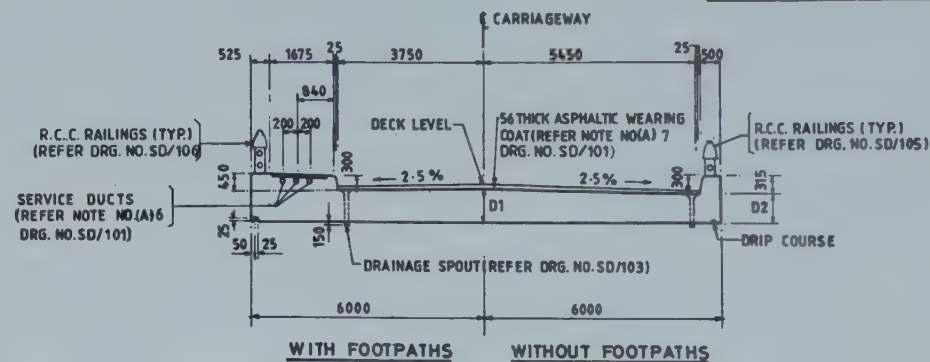
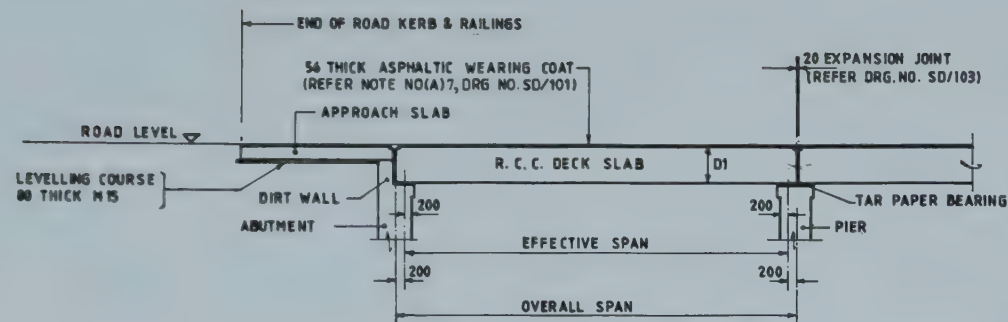
(D) GENERAL SPECIFICATIONS

The work shall be executed in accordance with MOST's Specification for Road and Bridge Works (Second Revision, 1988) except wherever otherwise mentioned.

(E) REFERENCE TO DRAWINGS

Drawing No.	Title.
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD//105	DETAILS OF R.C.C. RAILINGS (WITHOUT FOOTPATHS)
SD/106	DETAILS OF R.C.C. RAILINGS (WITH FOOTPATHS)
SD/107 THROUGH SD/114	R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT)
SD/115 THROUGH SD/122	SPANS 3m To 10m (WITHOUT FOOTPATHS)
	R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT)
	SPANS 3m To 10m (WITH FOOTPATHS)

MKD	DATE	DESCRIPTION	BY
R E V I S I O N			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 3.0m To 10.0 m (WITH AND WITHOUT FOOTPATHS) GENERAL NOTES			
RECOMMENDED BY		APPROVED BY	1990
 (U. JAYAKODI) E.E.		 (S.K. KAISTHA) S.E.	 (M.K. MUKHERJEE) C.E.
			DRG. NO. SD/101



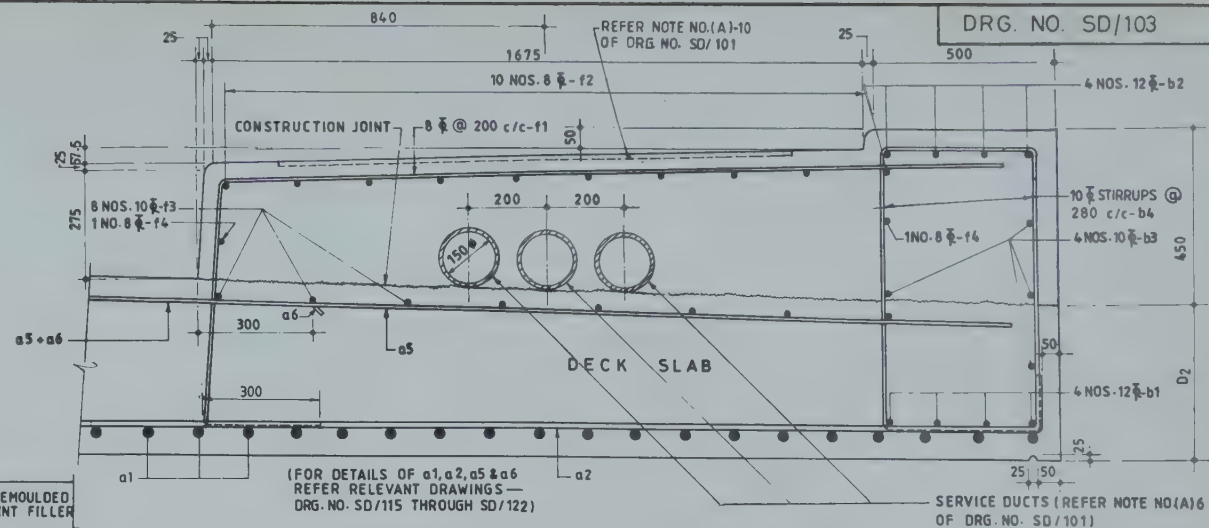
REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/105	DETAILS OF R.C.C. RAILINGS (WITHOUT FOOTPATHS)
SD/106	DETAILS OF R.C.C. RAILINGS (WITH FOOTPATHS)
SD/107 THROUGH SD/114	R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPANS 3.0m TO 10.0m (WITHOUT FOOTPATHS)
SD/115 THROUGH SD/122	R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPANS 3.0m TO 10.0m (WITH FOOTPATHS)

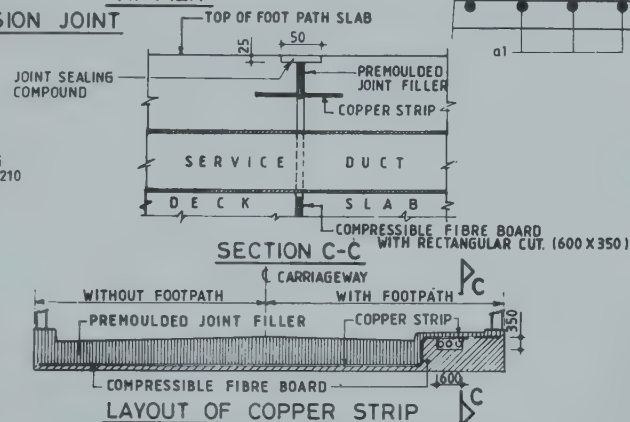
NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Typical arrangement of drainage spouts has been shown in plan. Suitable modifications may be made by the Engineer-in-charge as per site conditions and intensity of rainfall.

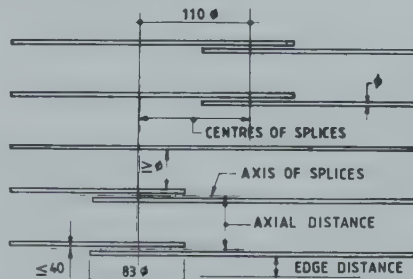
MKD	DATE	DESCRIPTION	BY
R E V I S I O N			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPANS 3.0m TO 10.0m (WITH AND WITHOUT FOOTPATHS) GENERAL ARRANGEMENT			
RECOMMENDED BY	APPROVED BY	1990	
(U. JAYAKODI) E.E.	(S.K. KAISTHA) S.E.	(M.K. MUKHERJEE) C.E.	DRG. NO. SD/102



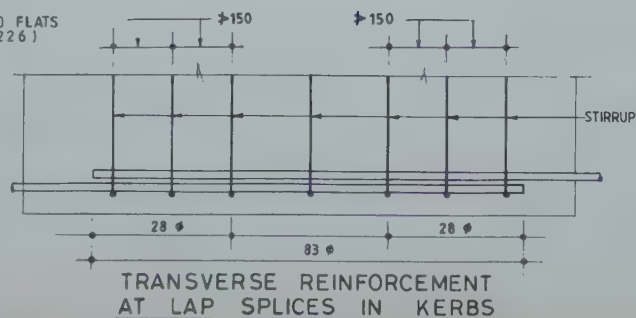
AT ABUTMENT DETAILS OF EXPANSION JOINT



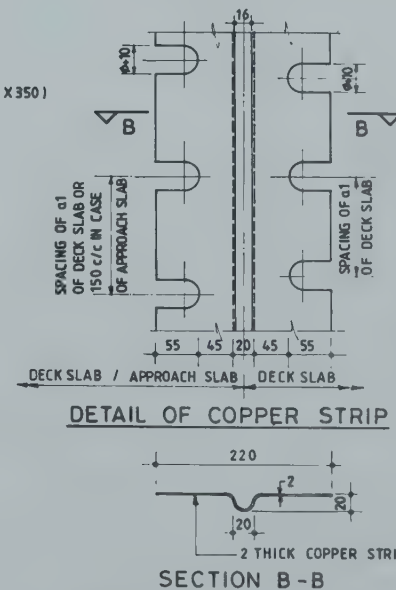
LAYOUT OF COPPER STRIP



LAP SPLICES OF BARS IN TENSION



TRANSVERSE REINFORCEMENT AT LAP SPLICES IN KERBS



DETAIL OF COPPER STRIP

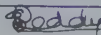
SECTION B-B

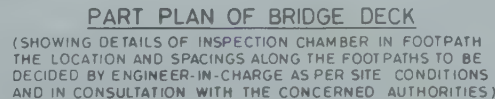
NOTES:-

1. All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
2. Splicing of main longitudinal bars in deck slab shall be avoided as far as practicable. In case the splicing of bars becomes unavoidable, the arrangement shall be as shown in the drawing.
3. Area of bars spliced at any section shall not exceed 50% of the total area of the bars provided at the section.
4. Joint filler shall conform to IS 1838. Products with I.S.I certification mark shall only be used.
5. The reinforcement of deck slab shall be suitably modified to accommodate the drainage spout. Also refer note no.2 of drawing no SD/102. The reinforcements marked f1 and f2 shall be modified in the region of inspection chamber.
6. The drainage spout shall be galvanised after welding the plates/Plats.

REFERENCE DRAWINGS

<u>DRAWING NO.</u>	<u>TITLE</u>
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/104	MISCELLANEOUS DETAILS
SD/105	DETAILS OF R. C. C. RAILINGS (WITHOUT FOOTPATHS)
SD/106	DETAILS OF R. C. C. RAILINGS (WITH FOOTPATHS)
SD/107	R.C.C. SOLID SLAB
THROUGH	SUPERSTRUCTURE (RIGHT) SPANS 3-0m TO 10-0m
SD/114	[WITHOUT FOOTPATHS]
SD/115	R.C.C. SOLID SLAB
THROUGH	SUPERSTRUCTURE (RIGHT) SPANS 3-0m TO 10-0m
SD/122	[WITH FOOTPATHS]

MKD	DATE	DESCRIPTION	BY
R E V I S I O N			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 3.0m to 10.0m (WITH AND WITHOUT FOOTPATHS) MISCELLANEOUS DETAILS			
RECOMMENDED BY		APPROVED BY	1990
 (S.S. REDDY) E.E.		 (P.N. SHIVAPRASAD) E.E.	DRG. NO. SD/103

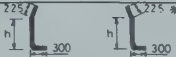


SECTION D-D
(SHOWING SHAPE OF BARS IN THE
REGION OF INSPECTION CHAMBER
OTHER REINFORCEMENTS ARE NOT SHOWN)

- 1 All dimensions are in millimetres unless otherwise mentioned
Only written dimensions are to be followed.
- 2 The reinforcement of railing posts shall be incorporated before casting of deck slab. The railing shall conform to drawing no SD/105 or SD/106 or any other approved type
- 3 Dimensions in schedule of reinforcement are given as per IS 2502
- 4 Schedule of reinforcement does not include change in reinforcement around inspection chamber, precast cover to chamber and railings

MKD	DATE	DESCRIPTION			BY
R E V I S I O N					
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI					
STANDARD DRAWINGS FOR ROAD BRIDGES					
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 30m TO 100m (WITH AND WITHOUT FOOTPATHS)					
MISCELLANEOUS DETAILS					
RECOMMENDED BY		APPROVED BY		1990	
 (U. JAYAKODI) E E		 (S. K. KAISTHA) S E		 (P. N. SHIVAPRASAD) C E	
				DRG. NO	SD/104



SL. NO.	LOCATION	BAR MKD.	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS	TOTAL LENGTH (m)	WEIGHT (kg)
1	RAILINGS	a1		8	100	940	$\left[\begin{matrix} A-160 \\ 100 \\ \approx N1 \end{matrix} \right] \times N$	$N1 \times \frac{940}{1000} \approx L1$	$L1 \times 0.39$
2	RAILINGS	a2		8	-	(A-50)	$\begin{matrix} 5 \times N \\ \approx N2 \end{matrix}$	$\frac{N2 \times (A-50)}{1000} \approx L2$	$L2 \times 0.39$
3	RAILINGS	a3		10	-	(A-50)	$\begin{matrix} 3 \times N \\ \approx N3 \end{matrix}$	$\frac{N3 \times (A-50)}{1000} \approx L3$	$L3 \times 0.61$
4	POST	a4		12	-	$h + 489$	$\begin{matrix} 4 \times (N+1) \\ \approx N4 \end{matrix}$	$\frac{h + 489 \times N4}{1000} \approx L4$	$L4 \times 0.88$
5	POST	a5		8	-	688	$\begin{matrix} 8 \times (N+1) \\ \approx N5 \end{matrix}$	$\frac{688 \times N5}{1000} \approx L5$	$L5 \times 0.39$

* FOR END POST INNER TWO BARS THE SHAPE IS 

QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	NUMBER OF DIVISIONS 'N'	A (mm)	h (mm)	QUANTITY		
				STEEL (Kg)	CONCRETE (m ³) RAILINGS	RAIL POST
3	2	1700	915	95	0.65	0.14
4	3	1467	965	127	0.84	0.18
5	3	1800	1015	143	1.03	0.18
6	4	1600	1065	176	1.22	0.23
7	4	1850	1115	195	1.41	0.23
8	5	1680	1215	230	1.60	0.27
9	5	1880	1285	249	1.79	0.27
10	6	1734	1365	288	1.98	0.32

● STEEL QUANTITIES INCLUDE 5% EXTRA FOR LAPS & WASTAGE. THE QUANTITIES ARE FOR RAILINGS ON BOTH SIDES OF THE SLABS.

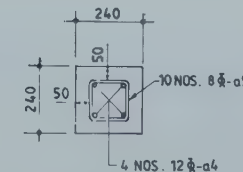
NOTES:-

- 1 All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- 2 The maximum size of the aggregate to be used for precast concrete work shall be limited to 12mm.
- 3 The centre to centre spacing 'A' between successive vertical posts shown in the elevation shall be adjusted to suit the length of the bridge span for which the railing is used but in no case shall its value exceed 2000.
- 4 The details of reinforcement in kerb and deck slab have not been shown in the drawing.
- 5 Railings to be built after the structural concrete of superstructure has hardened and the shuttering for the superstructure is released.
- 6 Railings shall be carefully constructed true to line and grade. Post shall be vertical with a tolerance not to exceed 1 in 500.
- 7 Special care shall be taken to match the surface of the cast-in-situ portion.

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/107	R.C.C. SOLID SLAB
THROUGH SD/114	SUPERSTRUCTURE (RIGHT) SPANS 3.0m TO 10.0m (WITHOUT FOOTPATHS)

MKD	DATE	DESCRIPTION						BY	
R E V I S I O N									
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI									
STANDARD DRAWINGS FOR ROAD BRIDGES									
R. C. C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 3-0m TO 10-0m (WITHOUT FOOTPATHS)									
DETAILS OF R. C. C. RAILINGS									
RECOMMENDED BY					APPROVED BY			1990	
 (U. JAYAKODI) E.E.		 (S.K. KAISTHA) S.E.		 (M.K. MUKHERJEE) C.E.			DRG. NO. SD/105		



* FOR END POST INNER TWO BARS, THE SHAPE IS 

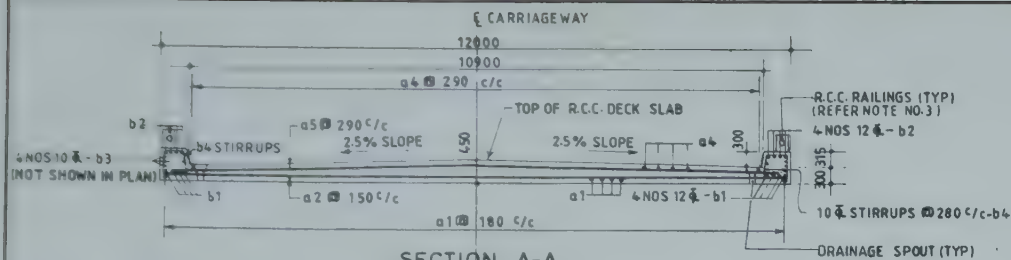
EFFECTIVE SPAN(m)	NUMBER OF DIVISIONS 'N'	A (m m)	h (m m)	QUANTITY		
				STEEL (Kg) Ⓢ	CONCRETE(m ³)	
				RAILINGS	RAIL POST	
3	2	1700	1300	107	0.65	0.22
4	3	1467	1350	143	0.84	0.29
5	3	1800	1400	159	1.03	0.29
6	4	1600	1450	196	1.22	0.36
7	4	1850	1500	215	1.41	0.36
8	5	1680	1600	254	1.60	0.44
9	5	1880	1670	273	1.79	0.44
10	6	1734	1750	316	1.98	0.51

STEEL QUANTITIES INCLUDE 5% EXTRA
FOR LAPS & WASTAGE. THE QUANTITIES ARE
FOR RAILINGS ON BOTH SIDES

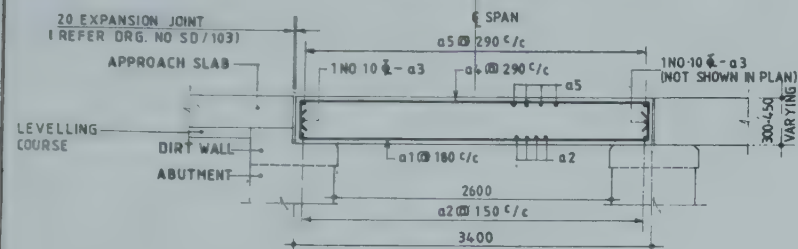
1. All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
2. The maximum size of the aggregate to be used for precast concrete work shall be limited to 12mm.
3. The centre to centre spacing 'A' between successive vertical posts shown in the elevation shall be adjusted to suit the length of the bridge span for which the railing is used but in no case shall its value exceed 2000.
4. The details of reinforcement in kerb and deck slab have not been shown in the drawing.
5. Railings to be built after the structural concrete of superstructure has hardened and the shuttering for the superstructure is released.
- ii. Railings shall be carefully constructed true to line and grade. Post shall be vertical with a tolerance not to exceed 1 in 500.
7. Special care shall be taken to match the surface of the cast-in-situ portion.

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/115 THROUGH SD/122	R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPANS 3.0m TO 10.0m (WITH FOOT PATHS)

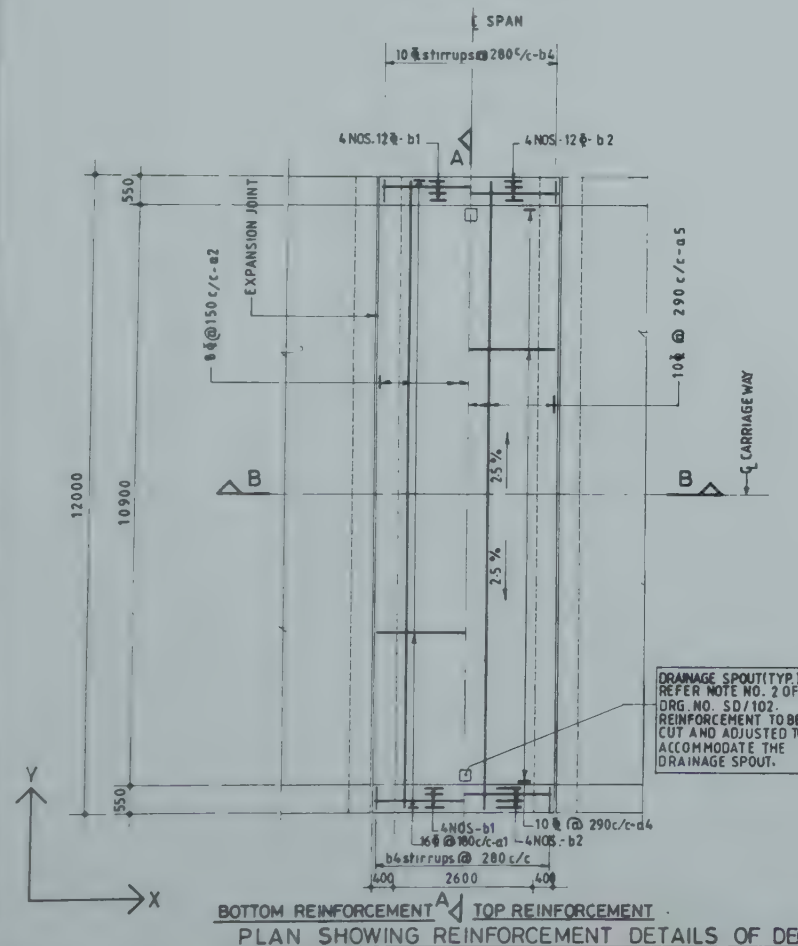
MKD	DATE	DESCRIPTION	BY
R E V I S I O N			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R. C. C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 3.0m TO 10.0m (WITH FOOTPATHS)			
DETAILS OF R. C. C. RAILINGS			
RECOMMENDED BY		APPROVED BY	
<i>g. l. v.</i> (U. JAYAKODI) E. E.		<i>P. K. Mukherjee</i> (S. K. RAISTHA) M. K. MUKHERJEE C. E.	
		1990 DRG NO SD/106	



SECTION A-A



SECTION B-B *



BOTTOM REINFORCEMENT TOP REINFORCEMENT
PLAN SHOWING REINFORCEMENT DETAILS OF DECK SLAB *

SCHEDULE OF REINFORCEMENT (PER SPAN)

SLNO	LOCATION	BAR MKD.	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG -X	a1		16	180	3600	67	241.20	381
2	SLAB-BOTTOM ALONG -Y	a2		8	150	12250	23	281.75	111
3	SLAB-SIDE ALONG -Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG -X	a4		10	290	3640	39	141.96	88
5	SLAB-TOP ALONG -Y	a5		10	290	11600	13	150.80	93
6	KERB - BOTTOM	b1		12	—	3930	8	31.36	28
7	KERB - TOP	b2		12	—	3930	8	31.44	28
8	KERB - SIDES	b3		10	—	3810	8	30.48	19
9	KERB - STIRRUPS	b4		10	280	1995	26	51.74	32

* DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS - REFER DRG. NO. SD/103.

Dead load of the superstructure per span including R.C.C. railings
@ 3kN/m and wearing coat @ 2 kN/sq.m. = 489 kN.

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/105	DETAIL OF R.C.C. RAILINGS (WITHOUT FOOTPATHS)

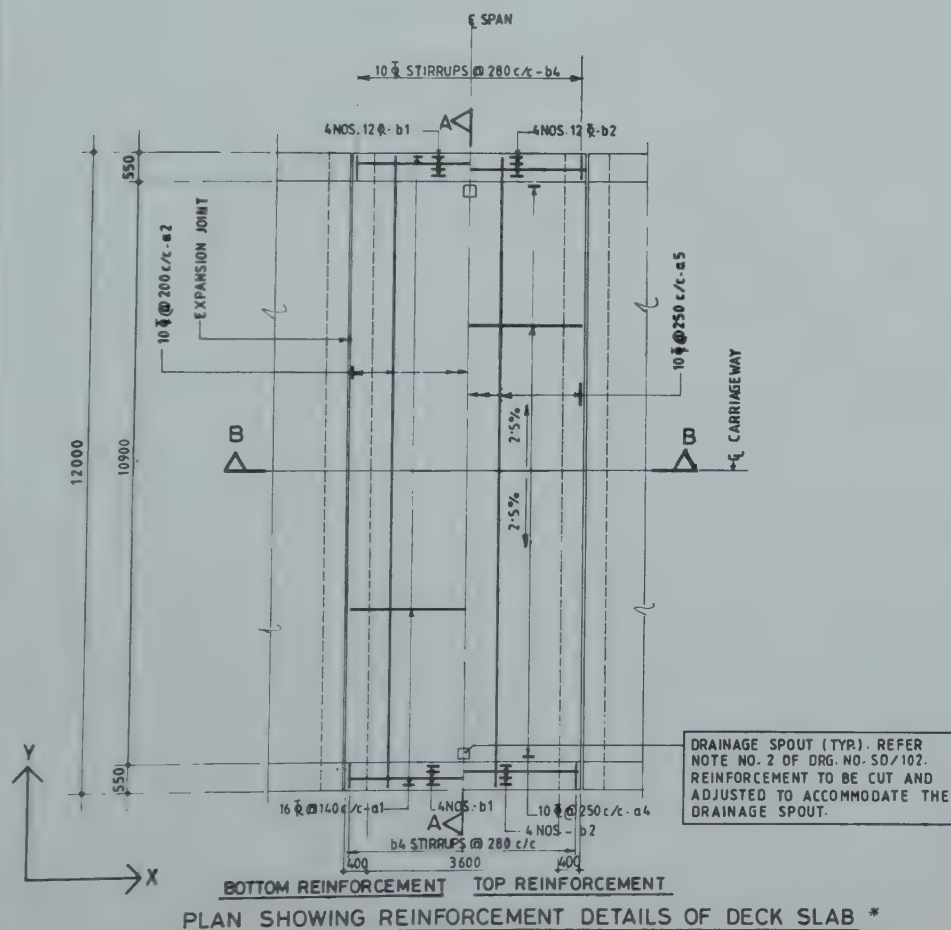
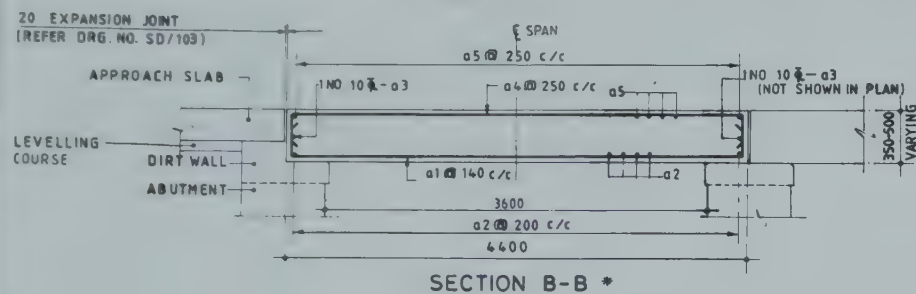
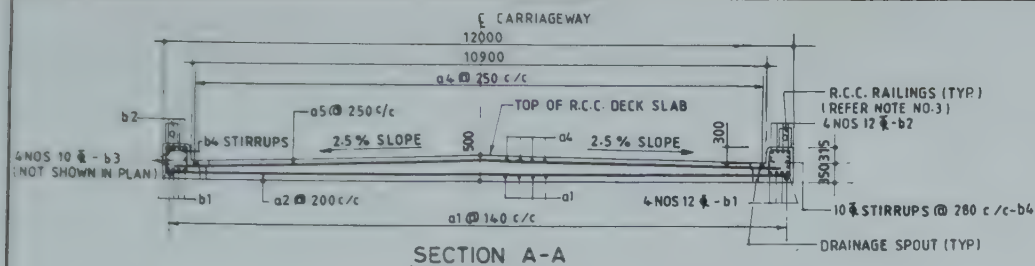
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	3.0
CONCRETE (cu.m.)	16.42
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	835
ASPHALTIC WEARING COAT (sq.m)	37.06

NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no (B)-1 of drawing no. SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no. SD/105 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502.
- Reinforcement of adjacent span superstructure, approach slab not shown.

MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 3.0m (WITHOUT FOOTPATHS)			
RECOMMENDED BY		APPROVED BY	
U. JAYAKUMAR (U. JAYAKUMAR) E.E.		S. K. KAISTHA (S. K. KAISTHA) S.E.	
1990		SD/107	



SCHEDULE OF REINFORCEMENT (PER SPAN)

SLNO	LOCATION	BAR MKD.	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH (m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG - X	a1		16	140	4700	86	404.20	639
2	SLAB-BOTTOM ALONG - Y	a2		10	200	12240	23	281.52	174
3	SLAB-SIDE ALONG - Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG - X	a4		10	250	4740	45	213.30	132
5	SLAB-TOP ALONG - Y	a5		10	250	11600	19	220.40	136
6	KERB - BOTTOM	b1		12	—	4920	8	39.36	35
7	KERB - TOP	b2		12	—	4930	8	39.44	35
8	KERB - SIDES	b3		10	—	4860	8	38.88	24
9	KERB - STIRRUPS	b4		10	280	2100	34	71.40	44

● DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS-REFER DRG. NO. SD/103

Dead load of the superstructure per span including R.C.C. railings @ 3kN/m and wearing coat @ 2 kN/sq. m. = 696 kN

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/105	DETAILS OF R.C.C. RAILINGS (WITHOUT FOOTPATHS)

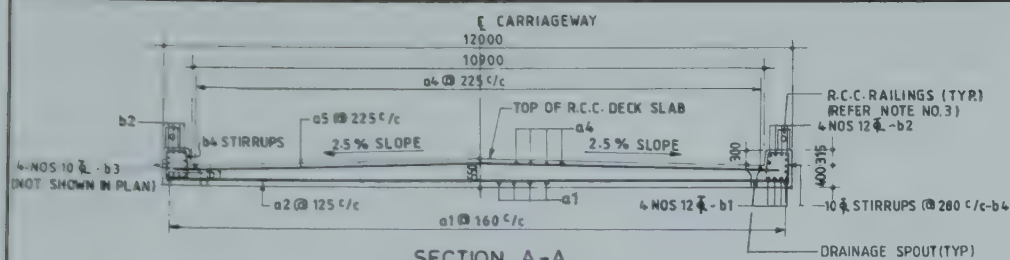
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	4.0
CONCRETE (cu.m.)	23.89
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	1296
ASPHALTIC WEARING COAT (sq.m)	47.96

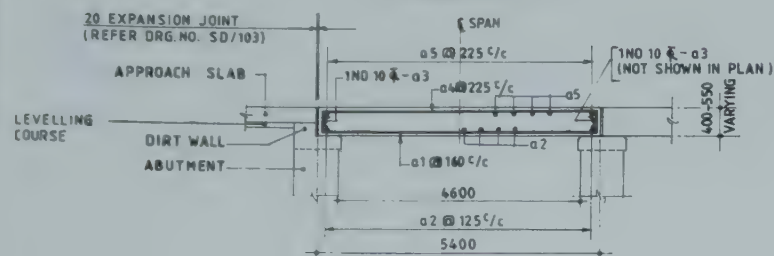
NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no (B)-1 of drawing no. SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no. SD/105 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502.
- Reinforcement of adjacent span superstructure, approach slab not shown.

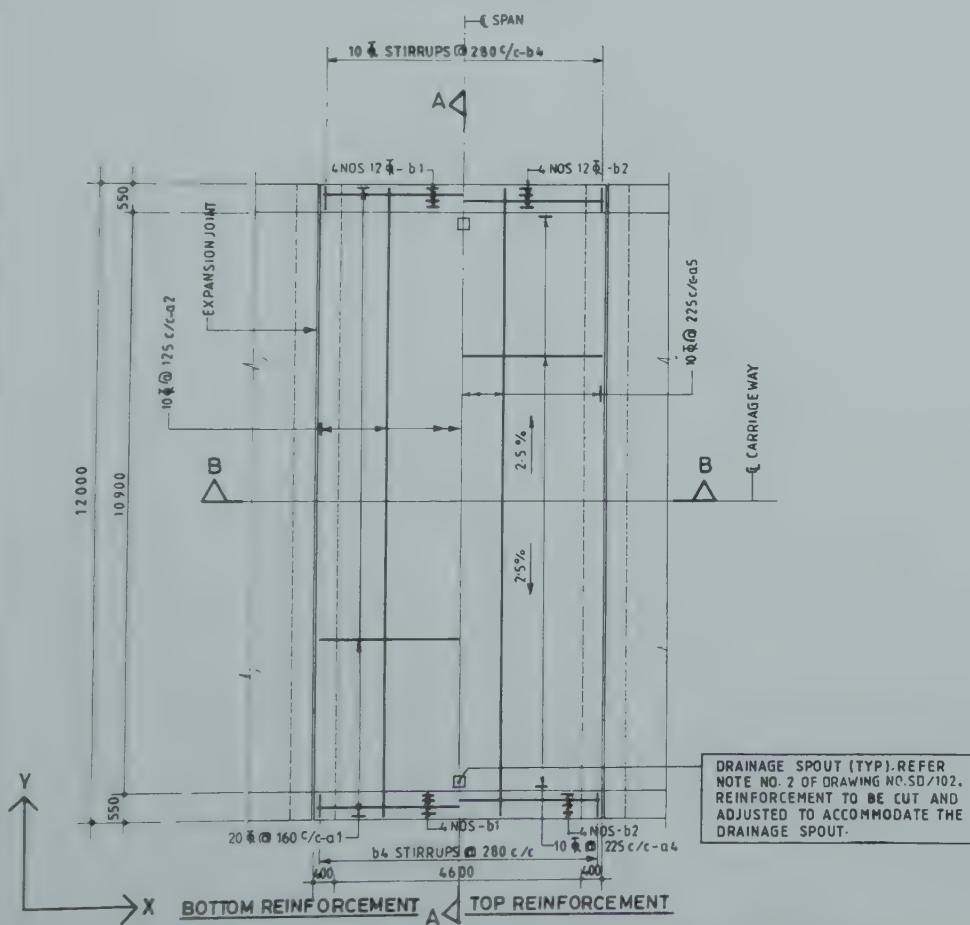
MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA			
MINISTRY OF SURFACE TRANSPORT			
(ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB			
SUPERSTRUCTURE (RIGHT) SPAN 4.0m			
(WITHOUT FOOTPATHS)			
RECOMMENDED BY		APPROVED BY	
[U. JAYAKODI]		[S. K. KAISTHA]	
E.E.		S.E.	
		[M. K. MUKHERJEE]	
		C.E.	
1990			DRG. NO.
			SD/108



SECTION A-A



SECTION B-B *



PLAN SHOWING REINFORCEMENT DETAILS OF DECK SLAB *

SCHEDULE OF REINFORCEMENT (PER SPAN)

SL.NO	LOCATION	BAR MKD.	SHAPE	DIA (mm.)	SPACING (mm.)	LENGTH (mm.)	NOS.	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		20	160	5780	76	439.28	1085
2	SLAB-BOTTOM ALONG-Y	a2		10	125	12340	44	542.96	335
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	225	5840	50	292.00	180
5	SLAB-TOP ALONG-Y	a5		10	225	11600	25	290.00	179
6	KERB - BOTTOM	b1		12	—	6010	8	48.08	43
7	KERB - TOP	b2		12	—	6030	8	48.24	43
8	KERB - SIDES	b3		10	—	5850	8	46.80	29
9	KERB - STIRRUPS	b4		10	280	2185	40	87.40	54

④ DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS-REFER DRG. NO. SD/103

Dead load of the superstructure per span including R.C.C. railings
 @ 3 kN/m and wearing coat @ 2 kN/sq.m. = 932 kN

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/105	DETAILS OF R.C.C. RAILINGS (WITHOUT FOOTPATHS)

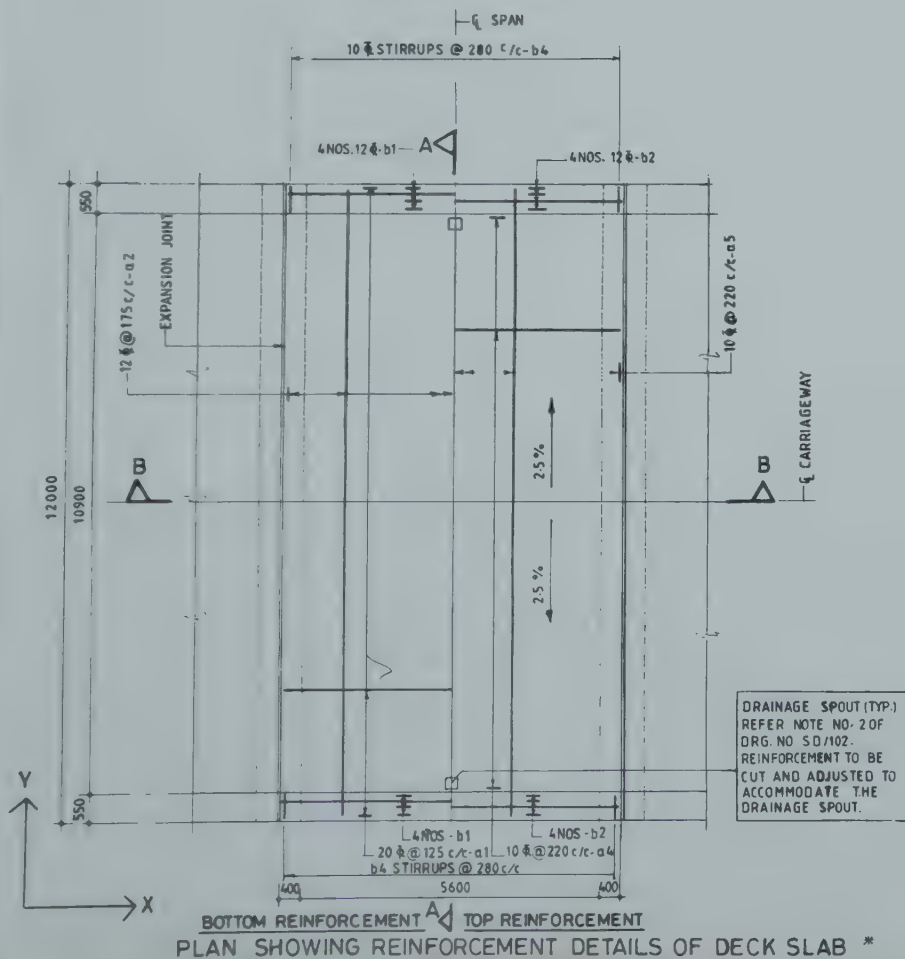
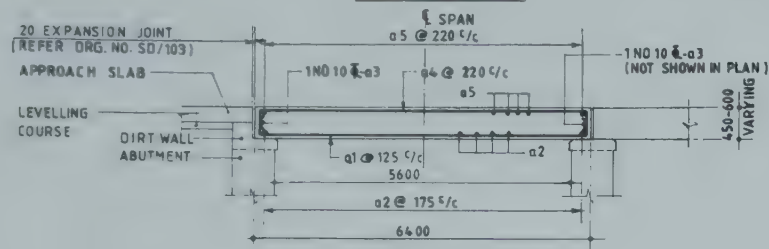
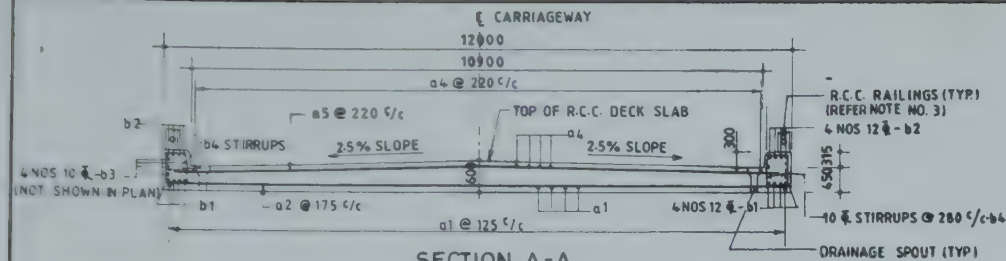
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	5.0
CONCRETE (cu.m.)	32.57
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	20.61
ASPHALTIC WEARING COAT (sq.m)	58.86

NOTES :-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note-no(B)-1 of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no SD/105 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502
- * Reinforcement of adjacent span superstructure, approach slab not shown.

MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA			
MINISTRY OF SURFACE TRANSPORT			
(ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB			
SUPERSTRUCTURE (RIGHT) SPAN 5.0m			
(WITHOUT FOOTPATHS)			
RECOMMENDED BY	APPROVED BY	1990	
(U. JAYAKODI)	(M. K. RAJTHAI)	(M. K. RAJTHAI)	DRG. NO.
E.E.	S.E.	C.E.	SD/109



SCHEDULE OF REINFORCEMENT (PER SPAN)

SL NO	LOCATION	BAR MKD.	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (m)	NOS	TOTAL LENGTH (m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG - X	a1		20	125	6830	97	662.51	1636
2	SLAB-BOTTOM ALONG - Y	a2		12	175	12330	37	456.21	405
3	SLAB-SIDE ALONG - Y	a3		10	-	11900	2	23.80	15
4	SLAB-TOP ALONG - X	a4		10	220	6890	51	351.39	217
5	SLAB-TOP ALONG - Y	a5		10	220	11600	30	348.00	215
6	KERB-BOTTOM	b1		12	-	7010	8	56.08	50
7	KERB-TOP	b2		12	-	7030	8	56.24	50
8	KERB-SIDES	b3		10	-	6850	8	54.80	34
9	KERB-STIRRUPS	b4		10	280	2280	48	109.44	68

● DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS - REFER DRG. NO. SD/103

Dead load of the superstructure per span including R.C.C. railings @ 3kN/m and wearing coat @ 2kN/sq.m. = 1196kN.

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/105	DETAILS OF R.C.C. RAILINGS (WITHOUT FOOTPATHS)

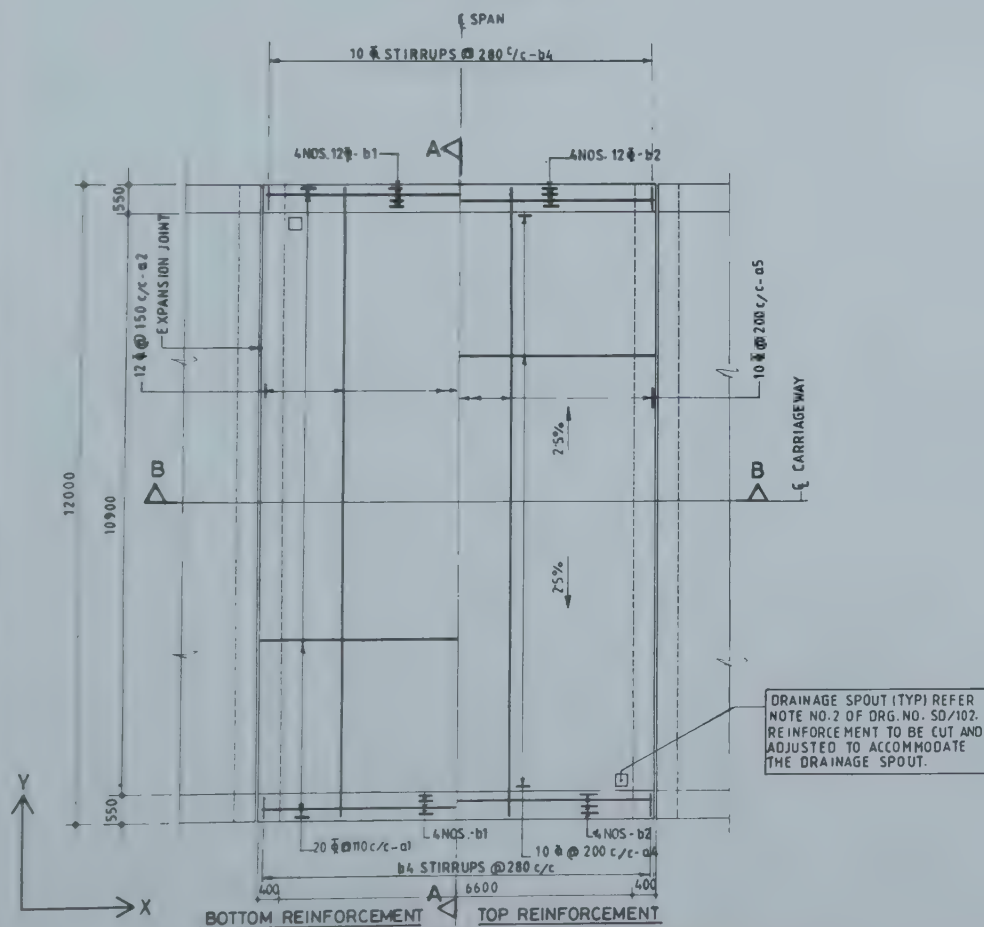
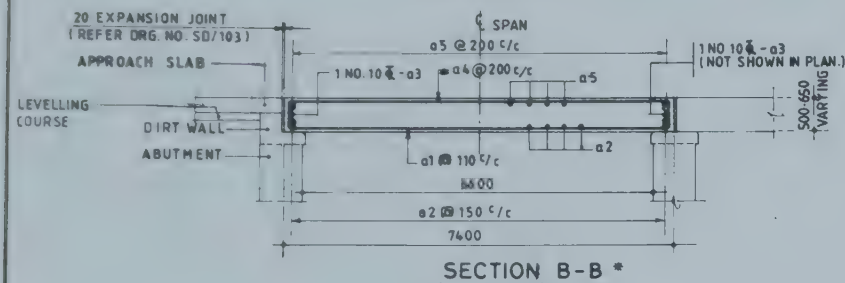
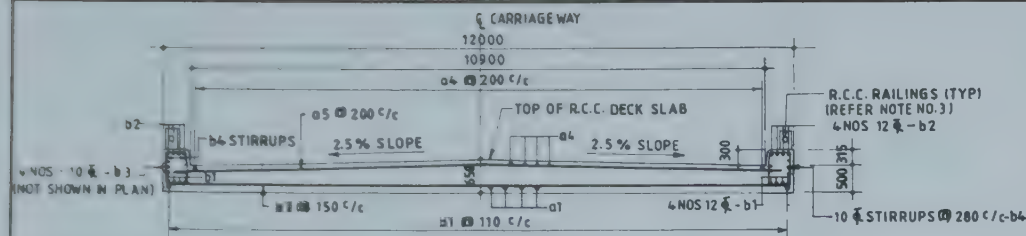
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	6.0
CONCRETE (cu.m)	42.43
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	2825
ASPHALTIC WEARING COAT (sq.m)	69.76

NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no. (B)-1 of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no. SD/105 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502.
- Reinforcement of adjacent span superstructure, approach slab not shown.

MKD.	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 6.0m (WITHOUT FOOTPATHS)			
RECOMMENDED BY	APPROVED BY	1990	
(U. JAYAKODI) E.E.	(S. K. KATHA) S.E.	(T. K. KATHA) M.K. MUKHERJEE C.E.	DRG. NO. SD/110



SCHEDULE OF REINFORCEMENT (PER SPAN)

SL.NO	LOCATION	BAR MKD.	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		20	110	7880	110	866.80	21.41
2	SLAB-BOTTOM ALONG-Y	a2		12	150	12330	50	616.50	5.47
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	200	7940	56	444.64	2.74
5	SLAB-TOP ALONG-Y	a5		10	200	11600	38	440.80	2.72
6	KERB - BOTTOM	b1		12	—	8110	8	64.88	58
7	KERB - TOP	b2		12	—	8130	8	65.04	58
8	KERB - SIDES	b3		10	—	7850	8	62.80	39
9	KERB - STIRRUPS	b4		10	280	7380	54	128.52	7.9

● DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS - REFER DRG. NO. SD/103.

Dead load of the superstructure per span including R.C.C. railings
@ 3kN/m and wearing coat @ 2 kN/sq.m. = 14.90 kN

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES.
SD/102	GENERAL ARRANGEMENT.
SD/103 & SD/104	MISCELLANEOUS DETAILS.
SD/105	DETAILS OF R.C.C. RAILINGS (WITHOUT FOOTPATHS)

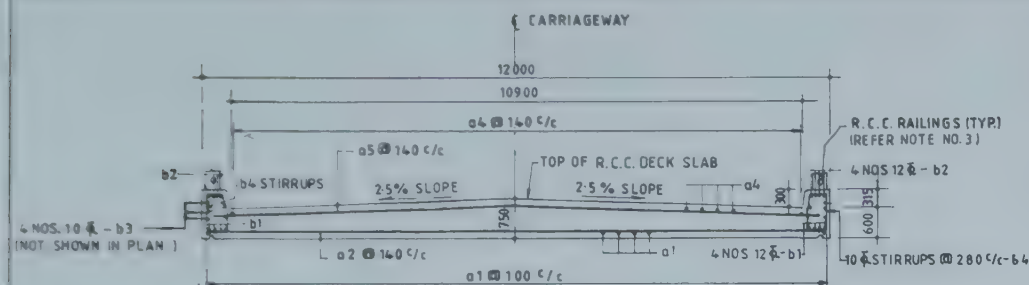
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	7.0
CONCRETE (cu. m.)	53.51
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	3657
ASPHALTIC WEARING COAT (sq. m)	80.66

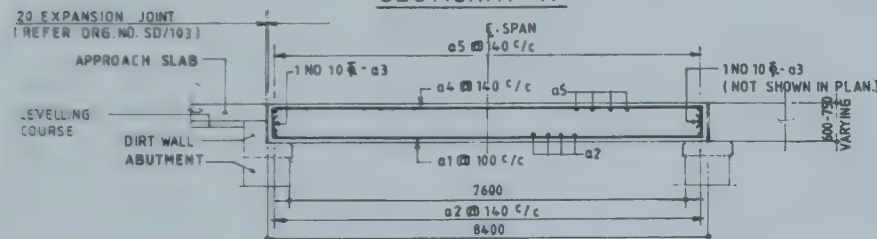
NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no 181 of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no SD/105 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502
- Reinforcement of adjacent span superstructure, approach slab not shown

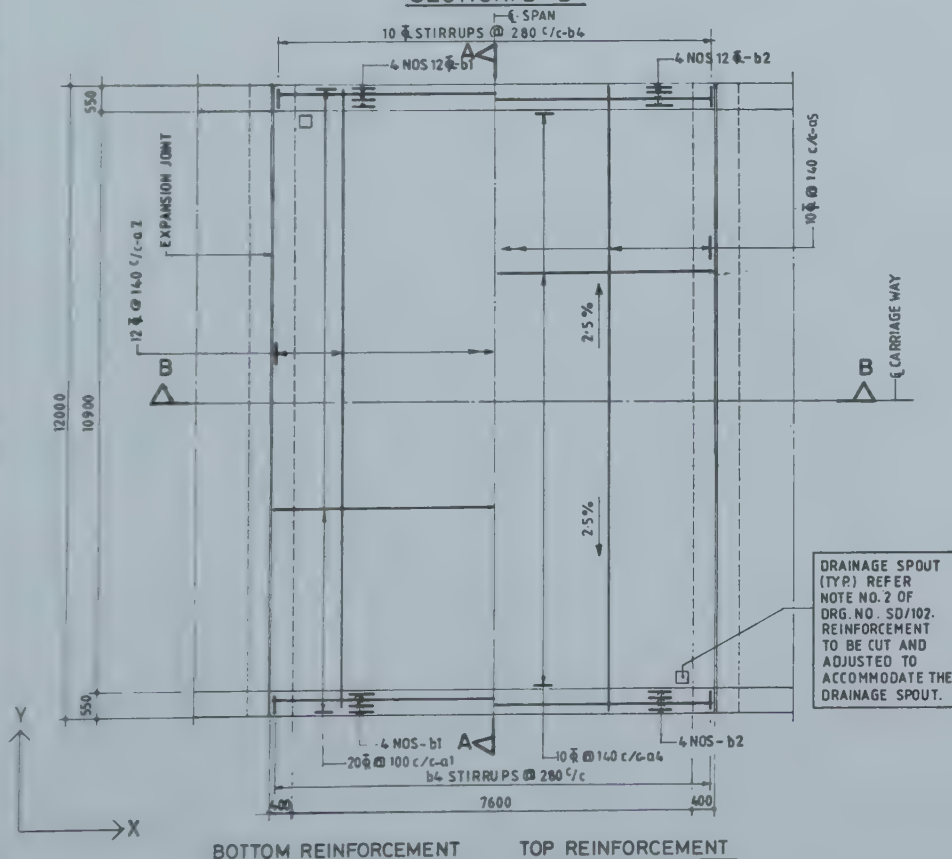
MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 7.0m (WITHOUT FOOTPATHS)			
RECOMMENDED BY		APPROVED BY	
(U. JAYAKOOI) E.E.		(M. K. RAJESHA) S.E.	
		(M. K. RAJESHA) S.E.	
		(M. K. RAJESHA) S.E.	
		DRG. NO. SD/111	



SECTION A-A



SECTION B-B *



PLAN SHOWING REINFORCEMENT DETAILS OF DECK SLAB *

SCHEDULE OF REINFORCEMENT (PER SPAN)

SL NO	LOCATION	BAR MKD	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS	TOTAL LENGTH (m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		20	100	8980	120	1077.60	2662
2	SLAB-BOTTOM ALONG-Y	a2		12	140	12430	61	758.23	673
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	140	9040	79	714.16	441
5	SLAB-TOP ALONG-Y	a5		10	140	11600	61	707.60	437
6	KERB-BOTTOM	b1		12	—	9210	8	73.68	65
7	KERB-TOP	b2		12	—	9230	8	73.84	66
8	KERB-SIDE	b3		10	—	8850	8	70.80	44
9	KERB-STIRRUPS	b4		10	280	2580	62	159.96	99

* DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS - REFER DRG. NO. SD/103

Dead load of the superstructure per span including R.C.C. railings
 @ 3 kN/m and wearing coat @ 2 kN/sq m = 1933 kN

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/105	DETAILS OF R.C.C. RAILINGS (WITHOUT FOOTPATHS)

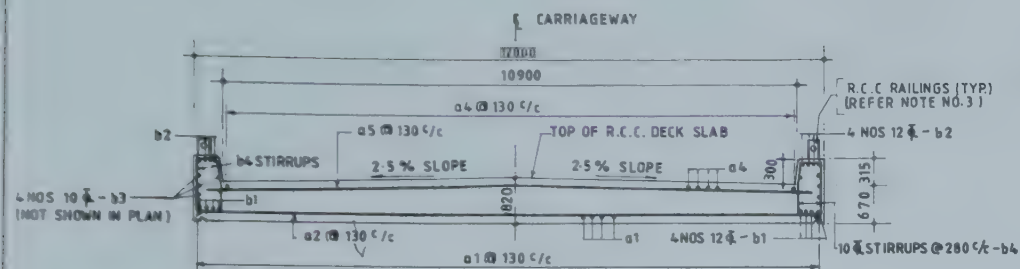
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	8.0
CONCRETE (cu. m.)	70.81
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	4727
ASPHALTIC WEARING COAT (sq. m)	91.56

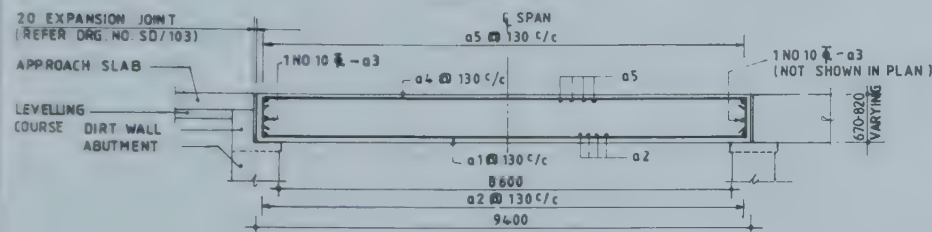
NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no. (B)-I of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcements of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no SD/105 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS:2502.
- * Reinforcement of adjacent span superstructure, approach slab not shown.

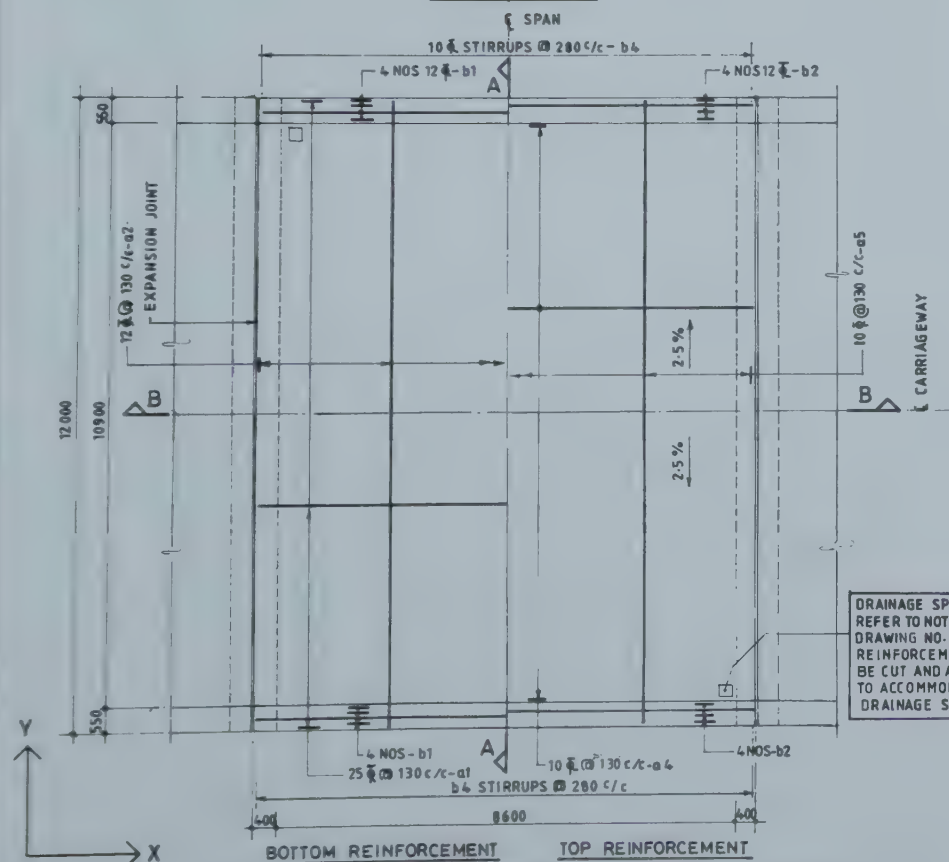
MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 8.0m (WITHOUT FOOTPATHS)			
RECOMMENDED BY	APPROVED BY	1990	
(U. JAYARDDI) E.E.	(S.K. KAISTHA) S.E.	(M.K. MUMERJEE) C.E.	DRG NO. SD /112



SECTION. A - A

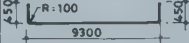
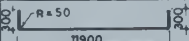
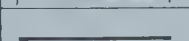
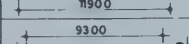
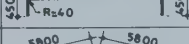
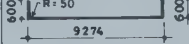
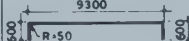


SECTION. B-B 港



PLAN SHOWING REINFORCEMENT DETAILS OF DECK SLAB *

SCHEDULE OF REINFORCEMENT (PER SPAN)

SL.NO	LOCATION	BAR MKD.	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG - X	a1		25	130	10050	93	934.65	35.98
2	SLAB-BOTTOM ALONG - Y	a2		12	130	12430	73	907.39	8.06
3	SLAB- SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	130	10140	85	861.90	5.32
5	SLAB-TOP ALONG -Y	a5		10	130	11600	73	846.80	5.22
6	KERB - BOTTOM	b1		12	—	10400	8	83.20	74
7	KERB - TOP	b2		12	—	10430	8	83.44	74
8	KERB - SIDES	b3		10	—	9840	8	78.72	49
9	KERB - STIRRUPS	b4		10	280	2710	70	189.70	1.17

● DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS - REFER DRG. NO. SD/103.

Dead load of the superstructure per span including R.C.C.railing @ 3kN/m and wearing coat @ 2kN/sq.m. = 2353 kN.

REFERENCE DRAWINGS

<u>DRAWING NO.</u>	<u>TITLE</u>
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/105	DETAILS OF R.C.C. RAILINGS (WITHOUT FOOTPATHS)

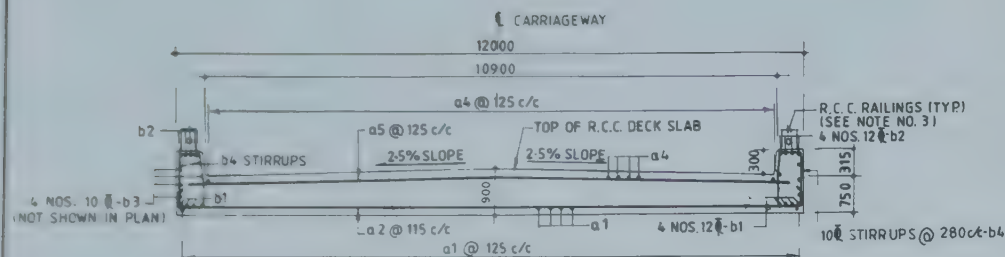
QUANTITIES (PER SPAN)

EFFECTIVE SPAN(m)	9-0
CONCRETE (cu.m)	87.14
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	6076
ASPHALTIC WEARING COAT (sq.m)	102.46

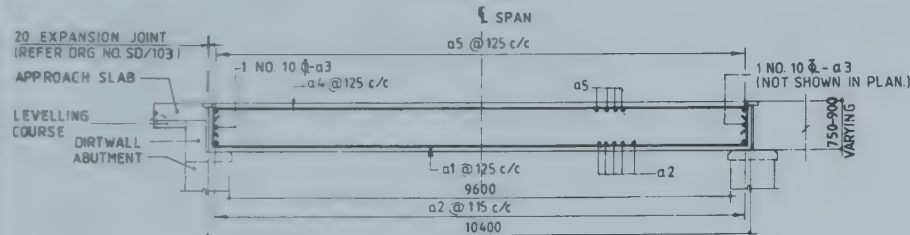
NOTES:-

1. All dimensions are in millimetres unless otherwise mentioned.
Only written dimensions are to be followed.
2. Special attention is invited to note no.(B)-1 of drawing no SD/101 regarding the design mix to be adopted.
3. The reinforcements of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no SD/105 or any other approved type.
4. Dimensions in schedule of reinforcement are given as per IS 2502
- *5. Reinforcement of adjacent span superstructure, approach slab not shown.

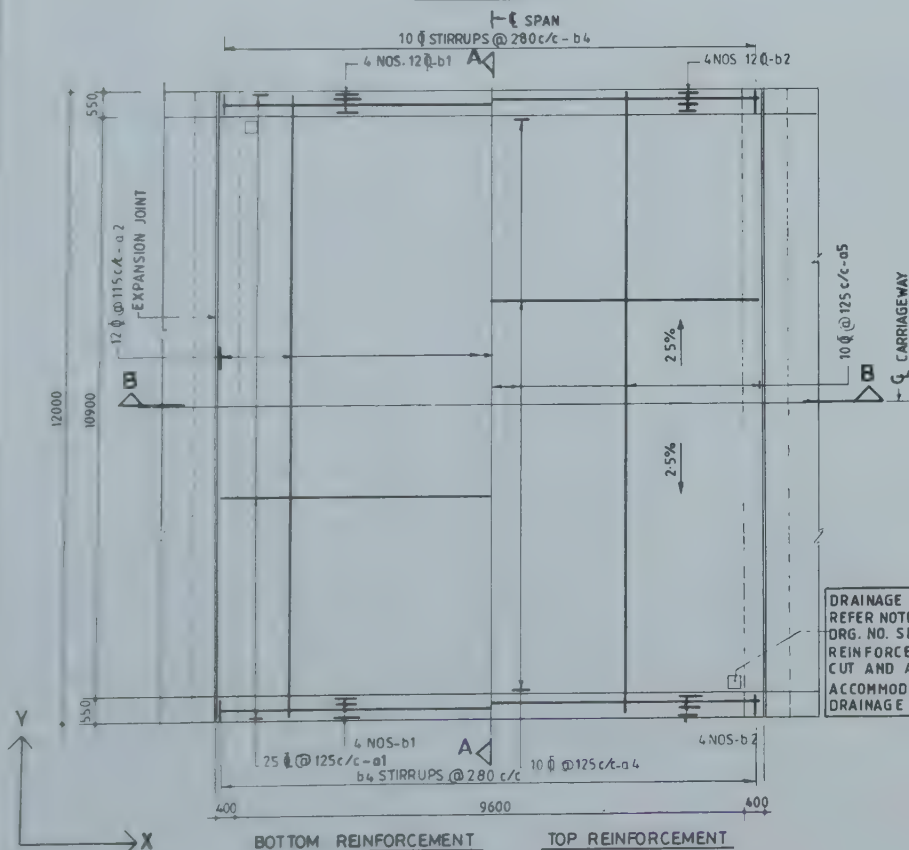
MKD	DATE	DESCRIPTION			BY
R E V I S I O N					
G O V E R N M E N T O F I N D I A MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI					
STANDARD DRAWINGS FOR ROAD BRIDGES					
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 9.0m (WITHOUT FOOTPATHS)					
RECOMMENDED BY		APPROVED BY		1990	
 (U. JAYAKODI) E.E.		 (M.K. MUKHERJEE) C.E.		ORIG. NO. SD/113	



SECTION A-A



SECTION B-B *



PLAN SHOWING REINFORCEMENT DETAILS OF DECK SLAB *

SCHEDULE OF REINFORCEMENT (PER SPAN)

SL.NO	LOCATION	BAR MKD	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		25	125	11150	96	1070.40	4121
2	SLAB-BOTTOM ALONG-Y	a2		12	115	12430	91	1131.13	1004
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	125	11240	89	1000.36	617
5	SLAB-TOP ALONG-Y	a5		10	125	11600	84	974.40	601
6	KERB-BOTTOM	b1		12	—	11500	8	92.00	82
7	KERB-TOP	b2		12	—	11530	8	92.24	82
8	KERB-SIDES	b3		10	—	10840	8	86.72	54
9	KERB-STIRRUPS	b4		10	280	2870	76	218.12	135

⊙ DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS-REFER DRG. NO.SD/103

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/105	DETAILS OF R.C.C. RAILINGS. (WITHOUT FOOTPATHS)

Dead load of the superstructure per span including R.C.C.railings @ 3kN / m. and wearing coat @ 2kN/sq m = 2843 kN.

QUANTITIES (PER SPAN)

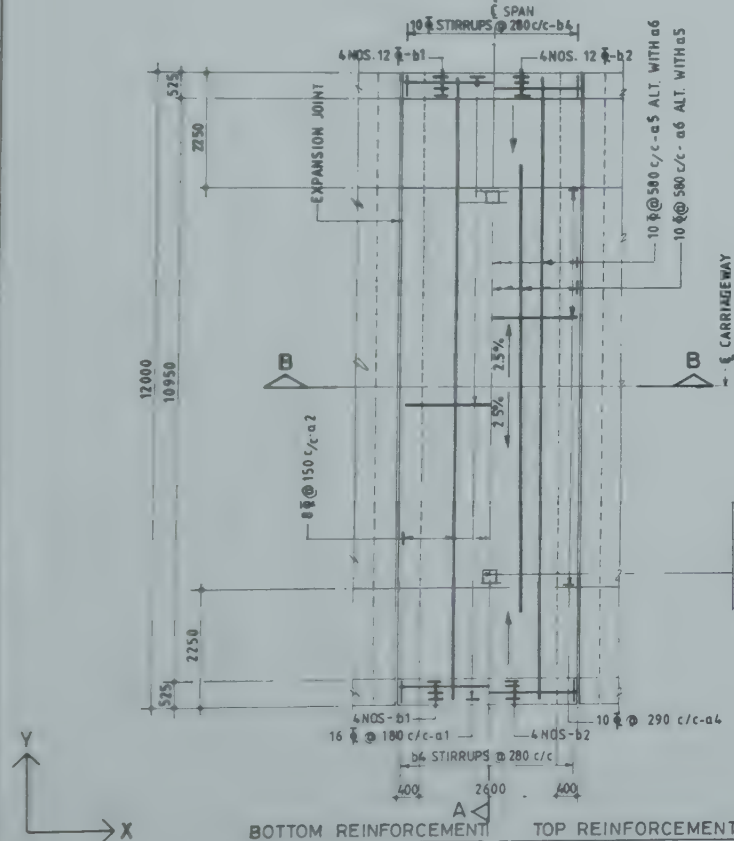
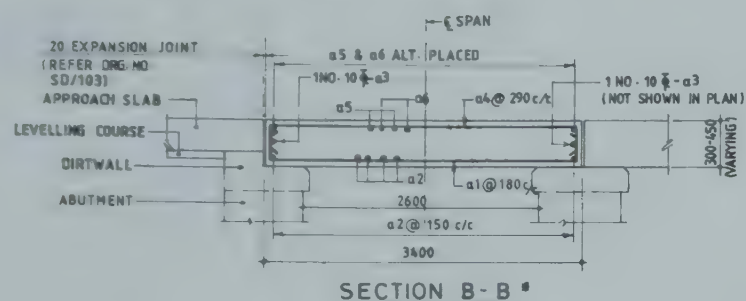
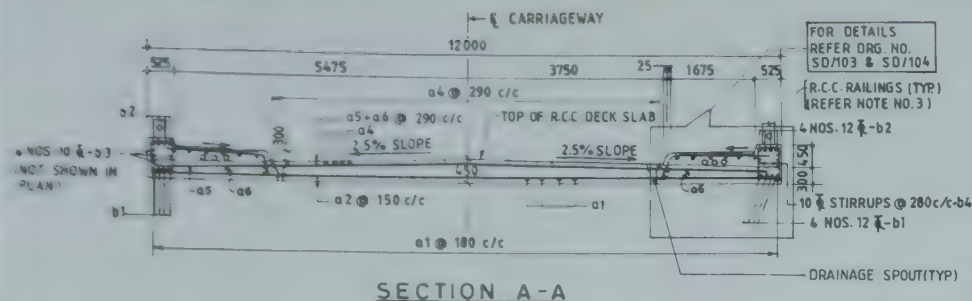
EFFECTIVE SPAN (m)	10.0
CONCRETE (cu. m.)	106.40
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	7047
ASPHALTIC WEARING COAT (sq. m)	113.36

NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note, no.(B) of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcements of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no SD/105 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502
- Reinforcement of adjacent span superstructure, approach slab not shown.

DRAINAGE SPOUT(TYP.) REFER NOTEN.O.2 OF DRG. NO. SD/102. REINFORCEMENT TO BE CUT AND ADJUSTED TO ACCOMMODATE THE DRAINAGE SPOUT.

MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 10.0m (WITHOUT FOOTPATHS)			
RECOMMENDED BY	APPROVED BY	1990	
(S. S. REDDY) E.E.	(S. K. KAISTHA) S.E.	(P. N. SHIVAPRASAD) C.E.	DRG NO SD/114



SCHEDULE OF REINFORCEMENT (PER SPAN)

SLNO	LOCATION	BAR MKD	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		16	180	3600	67	241.20	381
2	SLAB-BOTTOM ALONG-Y	a2		8	150	12250	23	281.75	111
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	290	3640	27	98.28	61
5	SLAB-TOP ALONG-Y	a5		10	580	11600	7	81.20	50
6	SLAB-TOP ALONG-Y	a6		10	580	8100	7	56.70	35
7	KERB-BOTTOM	b1		12	—	3920	8	31.36	28
8	KERB-TOP	b2		12	—	3930	8	31.44	28
9	KERB-SIDES	b3		10	—	3810	8	30.48	19
10	KERB-STIRRUPS	b4		10	280	2240	26	58.24	36
11	FOOTPATH-TOP ALONG-Y	f1		8	200	2840	36	102.24	40
12	FOOTPATH-TOP ALONG-X	f2		8	—	3750	20	75.00	30
13	FOOTPATH-MIDDLE ALONG-X	f3		10	—	3268	16	52.29	32
14	FOOTPATH-EDGES ALONG-X	f4		8	—	4220	4	16.88	7

⊕ DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS. REFER DRG. NO. SD/103.

Dead load of the superstructure per span including R.C.C. railings
 ⊕ 3 kN/m and wearing coat @ 2 kN/sq. m = 571 kN

QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	3.0
CONCRETE (cu.m.)	20.44
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg.)	917
ASPHALTIC WEARING COAT (sq.m.)	25.50

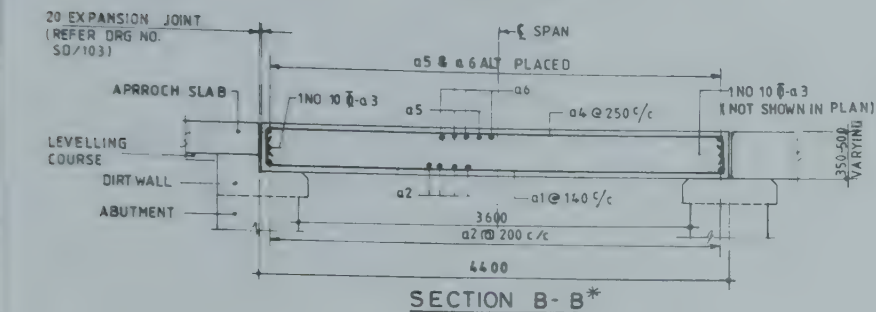
NOTES:—

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no. (B)-1 of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no. SD/106 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502
- * 5. Reinforcement of adjacent span superstructure, approach slab not shown.
- * 6. Service ducts and reinforcement of footpath not shown in plan.

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES.
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS.
SD/106	DETAILS OF R.C.C. RAILINGS (WITH FOOTPATHS)

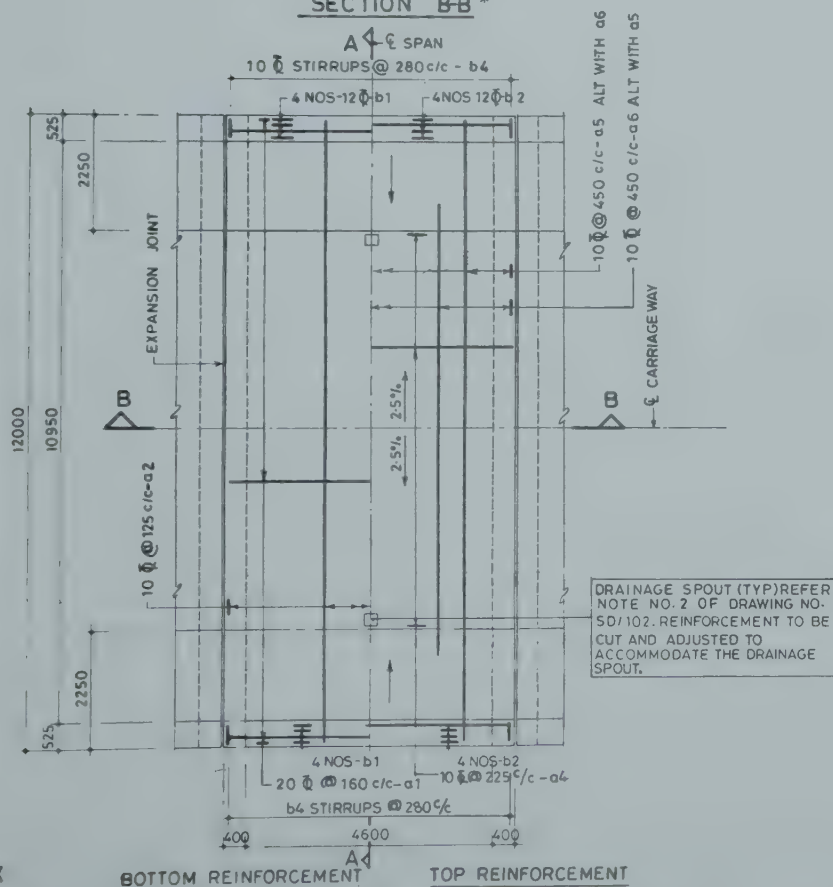
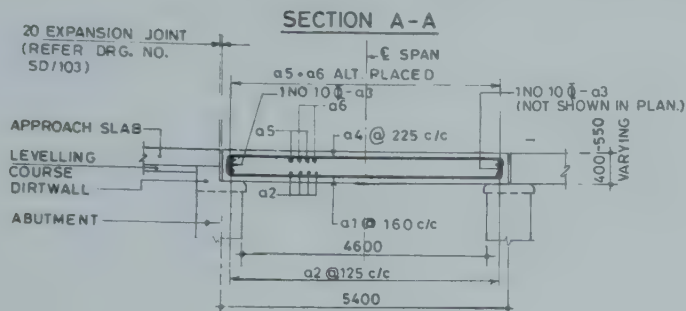
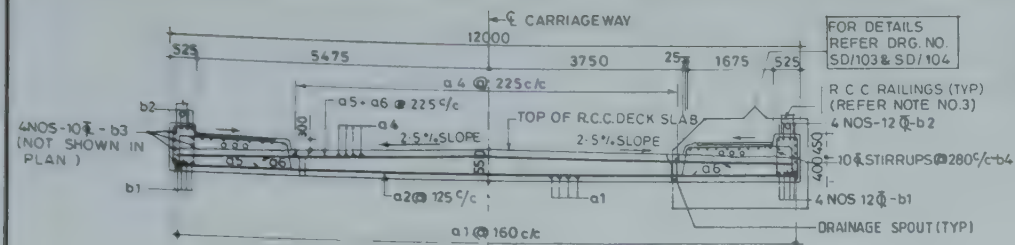
MKD.	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 3.0m (WITH FOOTPATHS)			
RECOMMENDED BY		APPROVED BY	
1990		1990	
(U. JAYAKODI) E.E.		(S.K. KAISTHA) S.E.	
(M.K. MUKHERJEE) C.E.		DRG. NO. SD/115	



SL.NO	LOCATION	BAR MKD	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		16	140	4700	86	404.2	6.39
2	SLAB-BOTTOM ALONG-Y	a2		10	200	12240	23	281.52	174
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	250	4740	31	146.94	91
5	SLAB-TOP ALONG-Y	a5		10	500	11600	10	116.000	72
6	SLAB-TOP ALONG-Y	a6		10	500	8100	10	81.00	50
7	KERB - BOTTOM	b1		12	—	4920	8	39.36	35
8	KERB - TOP	b2		12	—	4930	8	39.44	35
9	KERB - SIDES	b3		10	—	4860	8	38.88	24
10	KERB - STIRRUPS	b4		10	280	2340	34	79.56	49
11	FOOTPATH - TOP ALONG-Y	f1		8	200	2895	46	133.17	53
12	FOOTPATH - TOP ALONG-X	f2		8	—	4750	20	95.00	38
13	FOOTPATH - MIDDLE ALONG-X	f3		10	—	4268	16	68.29	42
14	FOOTPATH - EDGES ALONG-X	f4		8	—	5220	4	20.88	8

1. All dimensions are in millimetres unless otherwise mentioned.
Only written dimensions are to be followed.
2. Special attention is invited to note no. (B) of drawing no SD/101 regarding the design mix to be adopted.
3. The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no SD/106 or any other approved type.
4. Dimensions in schedule of reinforcement are given as per IS 2502
- *5. Reinforcement of adjacent span superstructure, approach slab not shown
- *6. Service ducts and reinforcement of footpath not shown in plan.

MKD.	DATE	DESCRIPTION	BY
R E V I S I O N			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 4.0m (WITH FOOTPATHS)			
RECOMMENDED BY		APPROVED BY	1990
 (U. JAYAKODI) E.E.	 (S.K. RAISTHA) S.E.	 (M.K. MUKHERJEE) E.E.	DRG. NO. SD/116



PLAN SHOWING REINFORCEMENT DETAILS OF DECK SLAB*

SCHEDULE OF REINFORCEMENT (PER SPAN)

SL.NO	LOCATION	BAR MKD	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		20	160	5780	76	439.28	1085
2	SLAB-BOTTOM ALONG-Y	a2		10	125	12340	44	542.96	335
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	225	5840	35	204.40	126
5	SLAB-TOP ALONG-Y	a5		10	450	11600	13	150.80	93
6	SLAB-TOP ALONG-Y	a6		10	450	8100	13	105.30	65
7	KERB-BOTTOM	b1		12	—	6010	8	48.08	43
8	KERB-TOP	b2		12	—	6030	8	48.24	43
9	KERB-SIDES	b3		10	—	5850	8	46.80	29
10	KERB-STIRRUPS	b4		10	280	2430	40	97.20	60
11	FOOTPATH-TOP ALONG-Y	f1		8	200	2940	56	164.64	65
12	FOOTPATH-TOP ALONG-X	f2		8	—	5850	20	117.00	46
13	FOOTPATH-MIDDLE ALONG-X	f3		10	—	5260	16	84.16	52
14	FOOTPATH-EDGES ALONG-X	f4		8	—	6210	4	24.84	10

* DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS - REFER DRG. NO. SD/103

Dead load of the superstructure per span including R.C.C. railings @ 3kN/m and wearing coat @ 2kN/sq.m. = 1062 kN

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES.
SD/102	GENERAL ARRANGEMENT.
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/106	DETAILS OF R.C.C. RAILINGS (WITH FOOTPATHS)

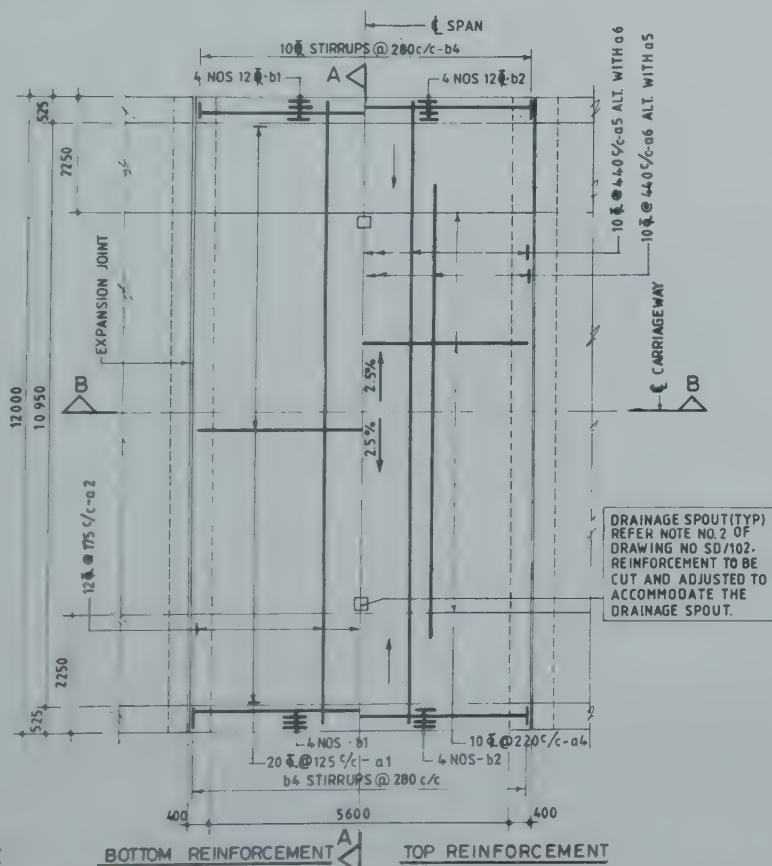
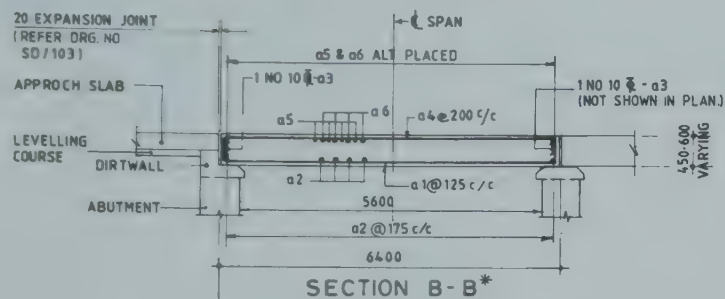
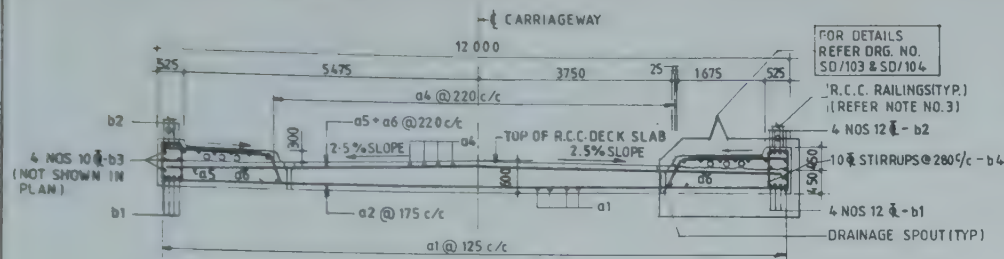
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	5.0
CONCRETE (cu.m)	38.95
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	2170
ASPHALTIC WEARING COAT (Sq.m)	40.50

NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no. B-1 of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no. SD/106 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502
- Reinforcement of adjacent span superstructure, approach slab not shown.
- Service ducts and reinforcement of footpath not shown in plan.

MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA			
MINISTRY OF SURFACE TRANSPORT			
(ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB			
SUPERSTRUCTURE (RIGHT) SPAN 5.0m			
(WITH FOOTPATHS)			
RECOMMENDED BY	APPROVED BY	1990	
(U. JAYAKODI) E.E.	(S. K. RAISTHA) S.E.	(M. K. MUKHERJEE) C.E.	DRG. NO. SD/117



SCHEDULE OF REINFORCEMENT (PER SPAN)

SL. NO.	LOCATION	BAR MKD	SHAPE	DIA. (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH (m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		20	125	6830	97	662.51	16.36
2	SLAB-BOTTOM ALONG-Y	a2		12	175	12330	37	456.21	4.05
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	220	6890	35	241.15	14.9
5	SLAB-TOP ALONG-Y	a5		10	440	11600	16	185.60	115
6	SLAB-TOP ALONG-Y	a6		10	440	8100	16	129.60	80
7	KERB-BOTTOM	b1		12	—	7010	8	56.08	50
8	KERB-TOP	b2		12	—	7030	8	56.24	50
9	KERB-SIDES	b3		10	—	6850	8	54.80	34
10	KERB-STIRRUPS	b4		10	280	2520	48	120.96	75
11	FOOTPATH-TOP ALONG-Y	f1		8	200	2990	66	197.34	78
12	FOOTPATH-TOP ALONG-X	f2		8	—	6850	20	137.00	54
13	FOOTPATH-MIDDLE ALONG-X	f3		10	—	6260	16	100.16	62
14	FOOTPATH-EDGES ALONG-X	f4		8	—	7210	4	28.84	11

⊗ DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS - REFER DRG. NO. SD/103.

Dead Load of the superstructure per span including R.C.C. railings @ 3 kN/m and wearing coat @ 2 kN/sq.m. = 1334 kN

REFERENCE DRAWINGS

DRAWING NO	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/106	DETAILS OF R.C.C. RAILINGS (WITH FOOTPATHS)

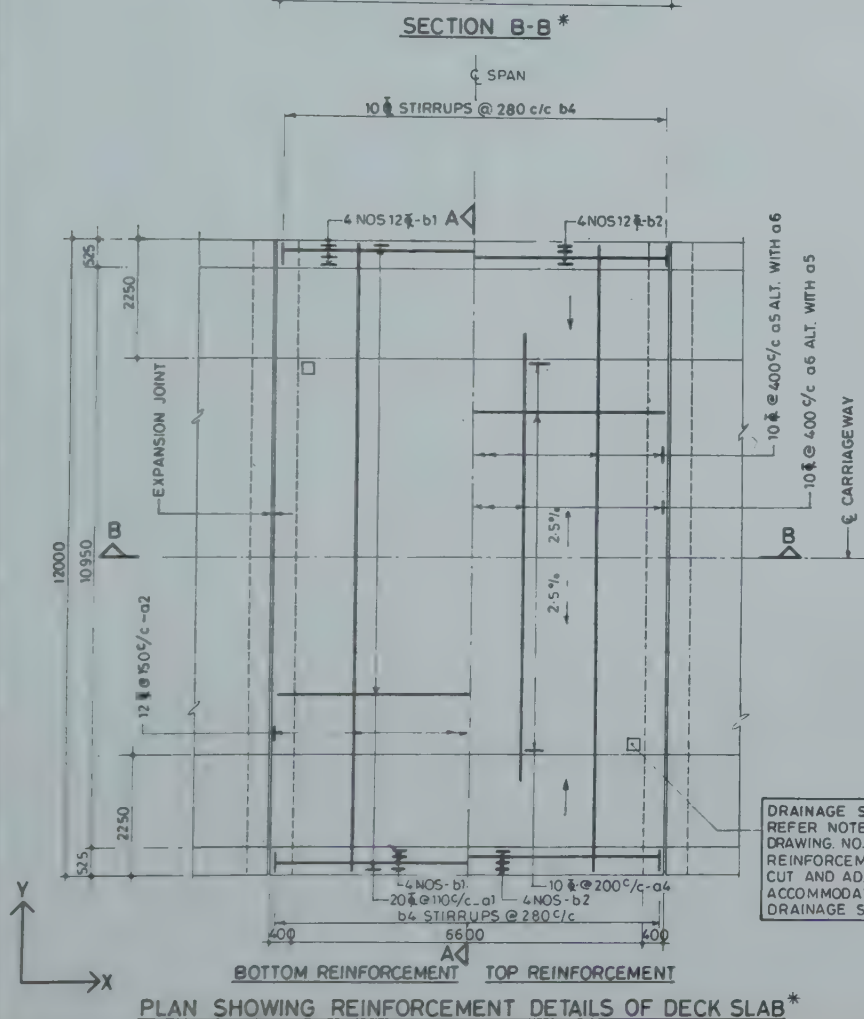
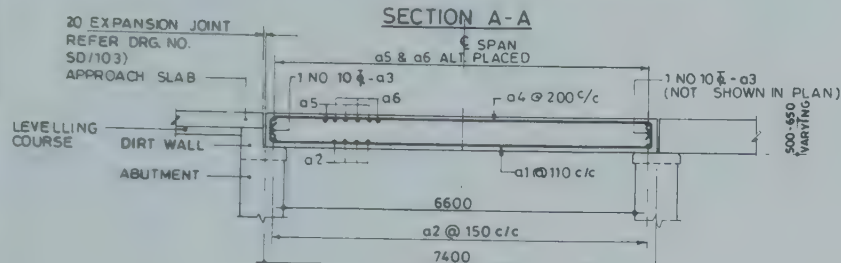
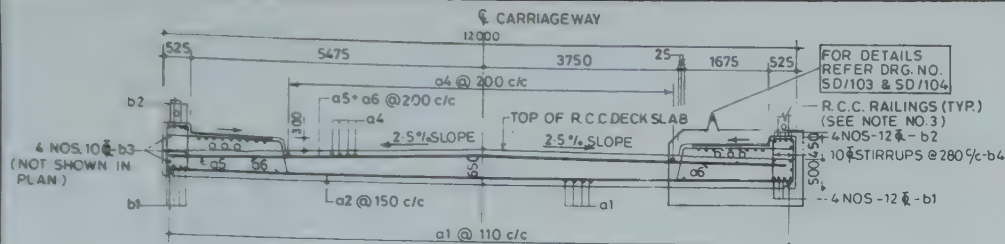
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	6.0
CONCRETE (cu. m)	50.00
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	2955
ASPHALTIC WEARING COAT (sq.m.)	48.00

NOTES:—

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no. B11 of drawing no. SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no. SD/106 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502
- Reinforcement of adjacent span superstructure, approach slab not shown.
- Service ducts and reinforcement of footpath not shown in plan.

MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 6.0m (WITH FOOTPATHS)			
RECOMMENDED BY	APPROVED BY	1990	DRG. NO.
(U. JAYAKODI) E.E.	(S.K. KAISTHA) S.E.	(M.K. MUKHERJEE) C.E.	SD/118



SCHEDULE OF REINFORCEMENT (PER SPAN)

SL. NO.	LOCATION	BAR MKD.	SHAPE	DIA. (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH (m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		20	110	7880	110	866.80	2141
2	SLAB-BOTTOM ALONG-Y	a2		12	150	12330	50	616.50	547
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	200	7940	39	309.66	191
5	SLAB-TOP ALONG-Y	a5		10	400	11600	20	232.00	143
6	SLAB-TOP ALONG-Y	a6		10	400	8100	20	162.00	100
7	KERB-BOTTOM	b1		12	—	8110	8	64.88	58
8	KERB-TOP	b2		12	—	8130	8	65.04	58
9	KERB-SIDES	b3		10	—	7850	8	62.80	39
10	KERB-STIRRUPS	b4		10	280	2620	54	141.48	87
11	FOOTPATH-TOP ALONG Y	f1		8	200	3021	76	229.60	91
12	FOOTPATH-TOP ALONG X	f2		8	—	7950	20	159.00	63
13	FOOTPATH-MIDDLE ALONG-X	f3		10	—	7260	16	116.16	72
14	FOOTPATH-EDGES ALONG-X	f4		8	—	8210	4	32.84	13

⊗ DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS - REFER DRG. NO. SD/103

Dead load of the superstructure per span including R.C.C. railings @ 3 kN/m and wearing coat @ 2 kN/sq.m.

= 1668 kN.

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/106	DETAILS OF R.C.C. RAILINGS (WITH FOOTPATHS)

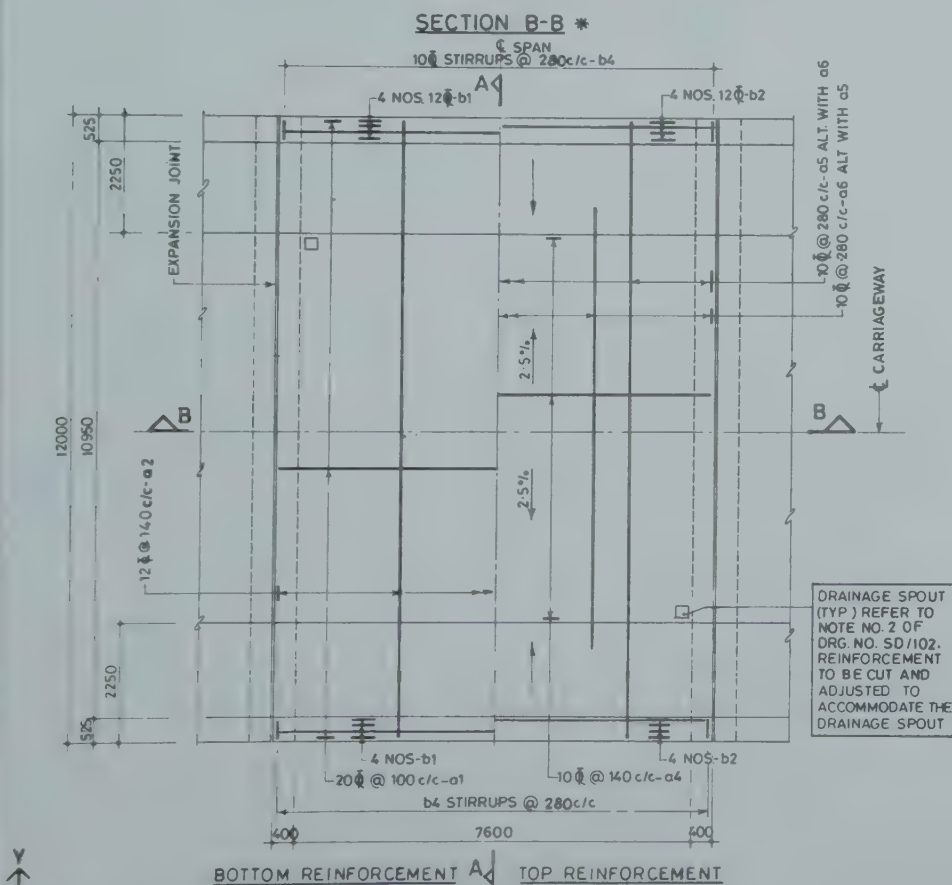
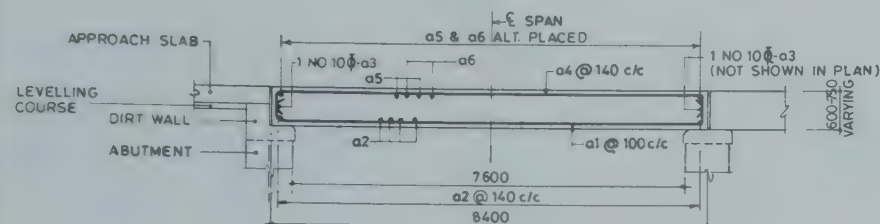
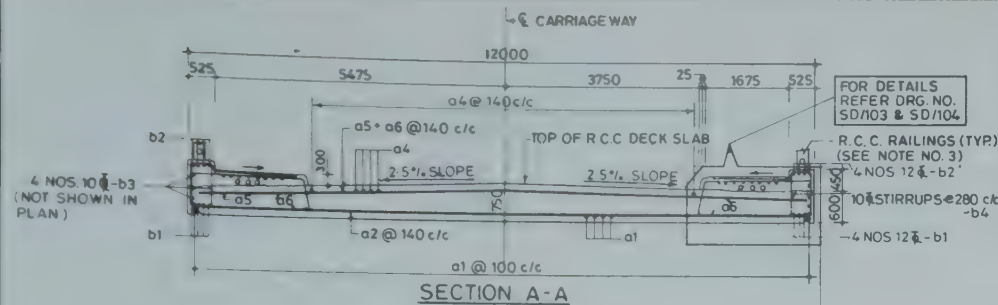
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	7.0
CONCRETE (cu.m)	62.25
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	3794
ASPHALTIC WEARING COAT (sq.m)	55.50

NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no. (B)-1 of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no SD/106 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502.
- *5. Reinforcement of adjacent span superstructure, approach slab not shown.
- *6. Service ducts and reinforcement of footpath not shown in plan.

MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA			
MINISTRY OF SURFACE TRANSPORT			
(ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB			
SUPERSTRUCTURE (RIGHT) SPAN 7.0m			
(WITH FOOTPATHS)			
RECOMMENDED BY		APPROVED BY	
1990		1990	
(U. JAYAKODI)	(S. K. KAISTHA)	(M. K. MUKHERJEE)	DRG. NO.
E E	S E	C. E.	SD/119



SCHEDULE OF REINFORCEMENT (PER SPAN)

SL.NO	LOCATION.	BAR MKD.	SHAPE	DIA (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH (m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		20	100	8980	120	1077.60	2662
2	SLAB-BOTTOM ALONG-Y	a2		12	140	12430	61	758.23	673
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	140	9040	55	497.20	307
5	SLAB-TOP ALONG-Y	a5		10	280	11600	31	359.60	222
6	SLAB-TOP ALONG-Y	a6		10	280	8100	31	251.10	155
7	KERB-BOTTOM	b1		12	—	9210	8	73.70	65
8	KERB-TOP	b2		12	—	9230	8	73.84	66
9	KERB-SIDES	b3		10	—	8850	8	70.80	44
10	KERB-STIRRUPS	b4		10	280	2820	62	174.84	108
11	FOOTPATH-TOP ALONG-Y	f1		8	200	3140	86	270.04	107
12	FOOTPATH-TOP ALONG-X	f2		8	—	9050	20	181.00	72
13	FOOTPATH-MIDDLE ALONG-X	f3		10	—	8260	16	132.16	82
15	FOOTPATH-EDGES ALONG-X	f4		8	—	9210	4	36.84	15

⊗ DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS—REFER DRG. NO. SD/103

Dead load of the superstructure per span including R.C.C railings @ 3 kN/m and wearing coat @ 2 kN/sq.m. = 2114 kN

QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	8-0
CONCRETE (cu.m.)	80-74
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	4823
ASPHALTIC WEARING COAT (Sq.m)	63-00

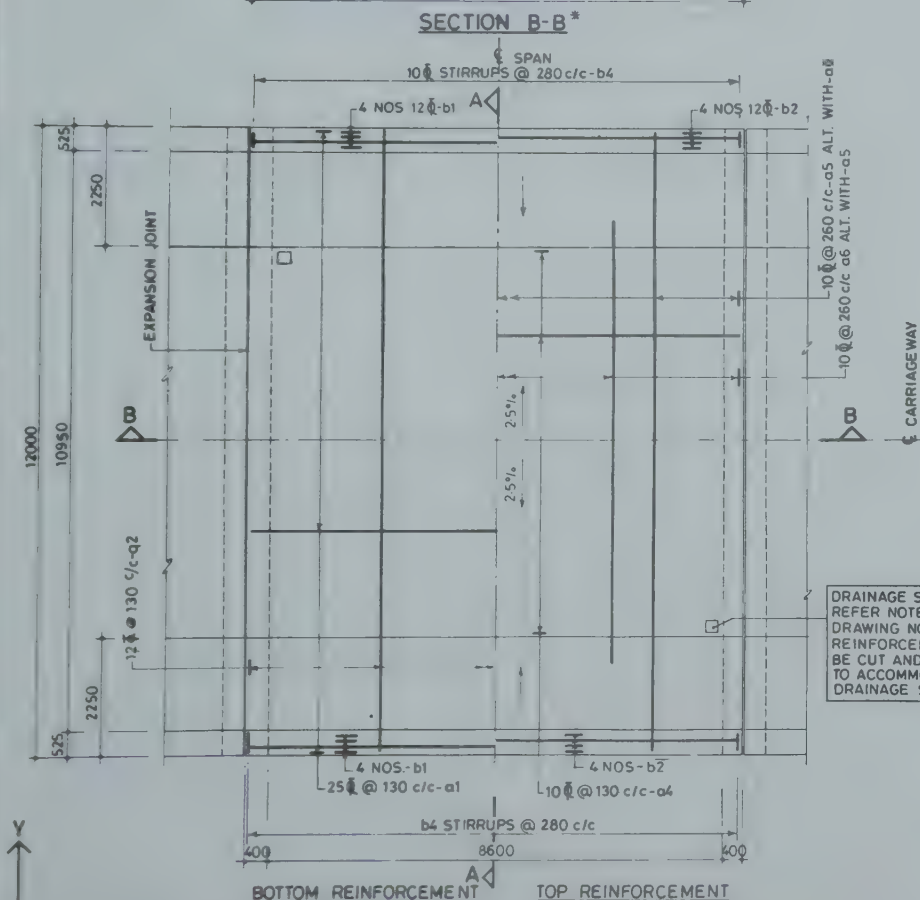
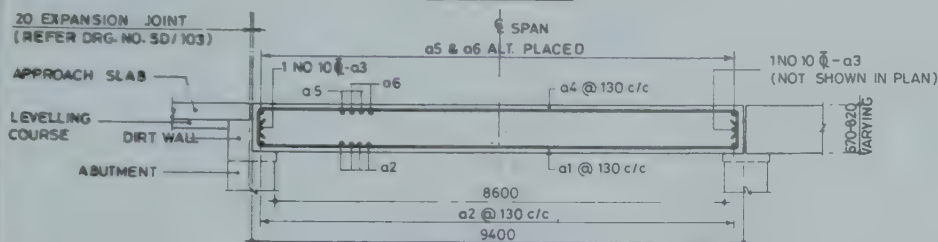
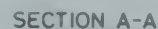
NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no.(B)-1 of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no SD/106 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502
- *5 Reinforcement of adjacent span superstructure, approach slab not shown
- *6 Service ducts and reinforcement of footpath not shown in plan.

REFERENCE DRAWINGS

DRAWING NO	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/106	DETAILS OF R.C.C RAILINGS (WITH FOOTPATHS)

MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA			
MINISTRY OF SURFACE TRANSPORT			
(ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB			
SUPERSTRUCTURE (RIGHT) SPAN 8-0m			
(WITH FOOTPATHS)			
RECOMMENDED BY		APPROVED BY	
(U. JAYAKODI) E.E.		(S.K. KAISTHA) S.E.	
		(M. K. KHAN) C.E.	
		DRG NO SD/120	



PLAN SHOWING REINFORCEMENT DETAILS OF DECK SLAB*

S.L.NO.	LOCATION	BAR MKD	SHAPE	DIA. (mm.)	SPACING (mm.)	LENGTH (mm.)	NOS.	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB BOTTOM ALONG-X	a1		25	130	10050	93	934.65	3598
2	SLAB-BOTTOM ALONG-Y	a2		12	130	12430	73	907.39	806
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	130	10140	59	598.26	369
5	SLAB-TOP ALONG-Y	a5		10	260	11600	37	429.20	265
6	SLAB-TOP ALONG-Y	a6		10	260	8100	37	299.70	185
7	KERB - BOTTOM	b1		12	—	10400	8	83.20	74
8	KERB - TOP	b2		12	—	10430	8	83.44	74
9	KERB-SIDES	b3		10	—	9840	8	78.72	49
10	KERB - STIRRUPS	b4		10	280	2950	70	206.50	127
11	FOOTPATH- TOP ALONG-Y	f1		8	200	3210	96	308.16	122
12	FOOTPATH- TOP ALONG-X	f2		8	-	10250	20	205.00	81
13	FOOTPATH-MIDDLE ALONG-X	f3		10	-	9250	16	148.00	91
14	FOOTPATH- EDGES ALONG-X	f4		8	-	10200	4	40.80	16

Dead load of the superstructure per span including R.C.C railings @ 3 kN/m and wearing coat @ 2 kN/sq.m. = 2500 kN

<u>DRAWING NO.</u>	<u>TITLE</u>
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS.
SD/106	DETAILS OF R.C.C RAILINGS (WITH FOOTPATHS)

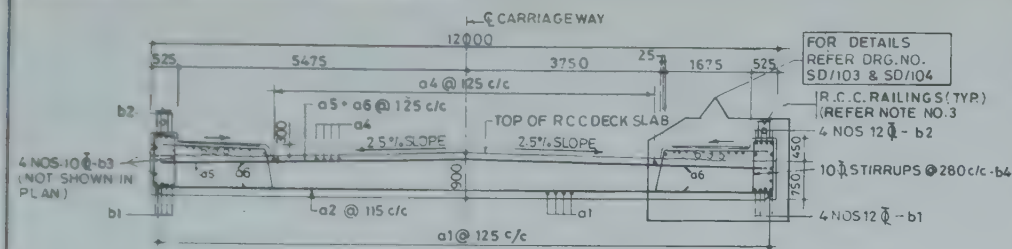
QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m)	9.0
CONCRETE (cu.m)	98.26
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	6166
ASPHALTIC WEARING COAT (sq. m)	70.50

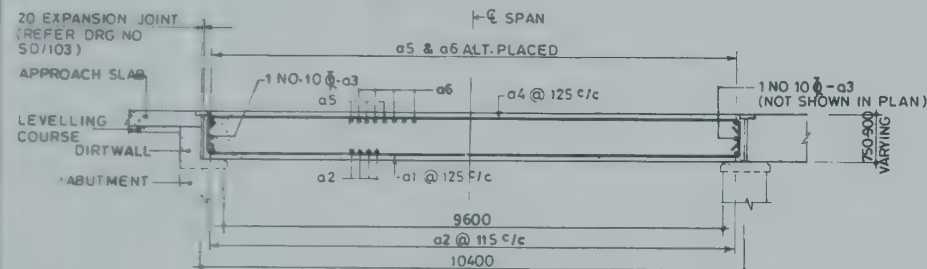
NOTES:—

- 1 All dimensions are in millimetres unless otherwise mentioned.
Only written dimensions are to be followed.
- 2 Special attention is invited to note no(B)-1 of drawing no SD/101 regarding the design mix to be adopted.
- 3 The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no SD/106 or any other approved type.
- 4 Dimensions in schedule of reinforcement are given as per IS 2502.
- * 5 Reinforcement of adjacent span superstructure, approach slab not shown.
- * 6. Service ducts and reinforcement of footpath not shown in plan.

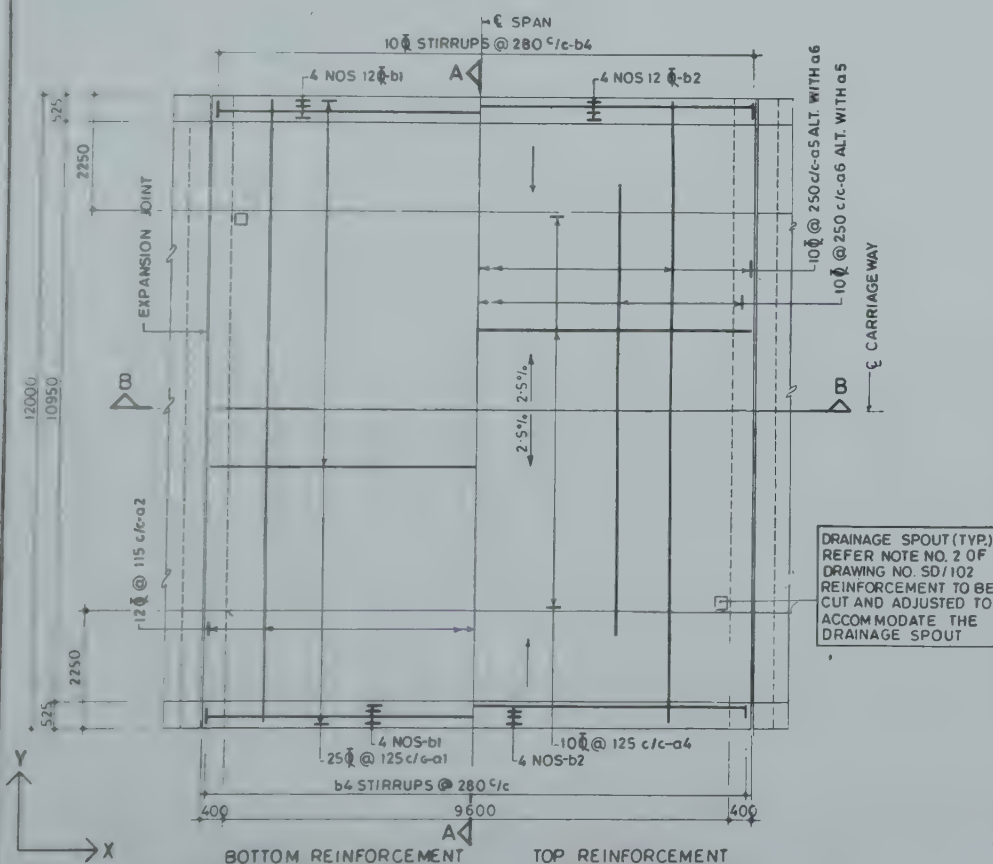
MKD	DATE	DESCRIPTION	BY
REVISION			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 9.0m (WITH FOOTPATHS)			
RECOMMENDED BY		APPROVED BY	19 90
 (U. JAYAKODI) E.E.	 (S. K. KAISTHA) S.E.	 (M. K. MUKHERJEE) C.E.	DRG. NO. SD / 121



SECTION A-A



SECTION B-B *



PLAN SHOWING REINFORCEMENT DETAILS OF DECK SLAB *

SCHEDULE OF REINFORCEMENT (PER SPAN)

SLNO	LOCATION	BAR MKD	SHAPE	DIA. (mm)	SPACING (mm)	LENGTH (mm)	NOS.	TOTAL LENGTH(m)	WEIGHT (kg)
1	SLAB-BOTTOM ALONG-X	a1		25	125	11150	96	1070.40	4121
2	SLAB-BOTTOM ALONG-Y	a2		12	115	12430	91	1131.13	1004
3	SLAB-SIDE ALONG-Y	a3		10	—	11900	2	23.80	15
4	SLAB-TOP ALONG-X	a4		10	125	11240	61	685.64	423
5	SLAB-TOP ALONG-Y	a5		10	250	11600	42	487.20	301
6	SLAB-TOP ALONG-Y	a6		10	250	8100	42	340.20	210
7	KERB-BOTTOM	b1		12	—	11500	8	92.00	82
8	KERB-TOP	b2		12	—	11530	8	92.24	82
9	KERB-SIDES	b3		10	—	10840	8	86.72	54
10	KERB-STIRRUPS	b4		10	280	3110	76	236.36	146
11	FOOTPATH-TOP ALONG-Y	f1		8	200	3275	106	347.15	137
12	FOOTPATH-TOP ALONG-X	f2		8	—	11450	20	229.00	90
13	FOOTPATH-MIDDLE ALONG-X	f3		10	—	10250	16	164.00	101
14	FOOTPATH-EDGES ALONG-X	f4		8	—	11200	4	44.80	18

* DOES NOT INCLUDE THE ADDITIONAL STIRRUPS AT LAPS OF LONGITUDINAL BARS-REFER DRG. NO. SD/103

Dead load of the superstructure per span including R.C.C. railings @ 3 kN/m and wearing coat @ 2 kN/sq m = 3094. kN.

REFERENCE DRAWINGS

DRAWING NO.	TITLE
SD/101	GENERAL NOTES
SD/102	GENERAL ARRANGEMENT
SD/103 & SD/104	MISCELLANEOUS DETAILS
SD/106	DETAILS OF R.C.C. RAILINGS (WITH FOOTPATHS)

QUANTITIES (PER SPAN)

EFFECTIVE SPAN (m.)	10.0
CONCRETE (cu.m)	118.70
STEEL INCLUDING 5% EXTRA FOR LAPS AND WASTAGE (kg)	7124
ASPHALTIC WEARING COAT (sq.m)	78.00

NOTES:-

- All dimensions are in millimetres unless otherwise mentioned. Only written dimensions are to be followed.
- Special attention is invited to note no.(B)-1 of drawing no SD/101 regarding the design mix to be adopted.
- The reinforcement of railing posts shall be incorporated before casting of the deck slab. The railings shall conform to drawing no. SD/106 or any other approved type.
- Dimensions in schedule of reinforcement are given as per IS 2502
- Reinforcement of adjacent span superstructure, approach slab not shown.
- Service ducts and reinforcement of footpath not shown in plan.

MKD	DATE	DESCRIPTION	BY
R E V I S I O N			
GOVERNMENT OF INDIA MINISTRY OF SURFACE TRANSPORT (ROADS WING), NEW DELHI			
STANDARD DRAWINGS FOR ROAD BRIDGES			
R.C.C. SOLID SLAB SUPERSTRUCTURE (RIGHT) SPAN 10.0m (WITH FOOTPATHS)			
RECOMMENDED BY <i>P. S. Reddy</i> (S.S. REDDY) E.E.	APPROVED BY <i>P. N. Shrivastava</i> (P.N. SHRIVASTAVA) C.E.	1990	DRG. NO. SD/122

